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ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/6 4/2
20301A ASSAULT BREAKER, MISSILE NUMBER FTV-1, ROUND NUMBER V161--ETC(U)
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March 81
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METEOROLOGICAL DATA REPORT
20301A Assault Breaker
Missile No. FTV-1
Round No. VIGI
31 March 1981

by

White Sands Meteorological Team

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 20301A Assault Breaker, Missile Number FTV-1, Round Number VIGI, presented in tabular form.		

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INTRODUCTION

20301A Assault Breaker, Missile Number FIV-1, Round Number V1G1, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0918 on 31 March 1981. The scheduled launch time was 0855.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations of temperature ($^{\circ}$ C), relative humidity, dew point, wind direction and speed, and cloud cover were made at the met site at T-0 minutes.

Wind direction from one anemometer was

for . . .

Low level wind data were obtained from Single Theodolite hot balloon observations at:

SITE AND ALTITUDE

LC-33 1260 Meters and 660 Meters.

(b) Air structure data (rawinsonde) were collected at the following met sites. Data were collected from surface to as high as possible in 500-foot increments.

SITE AND TIME

WSD	0918
LC-37	0755
HMN	0655
Jal	0655
Jal	0918

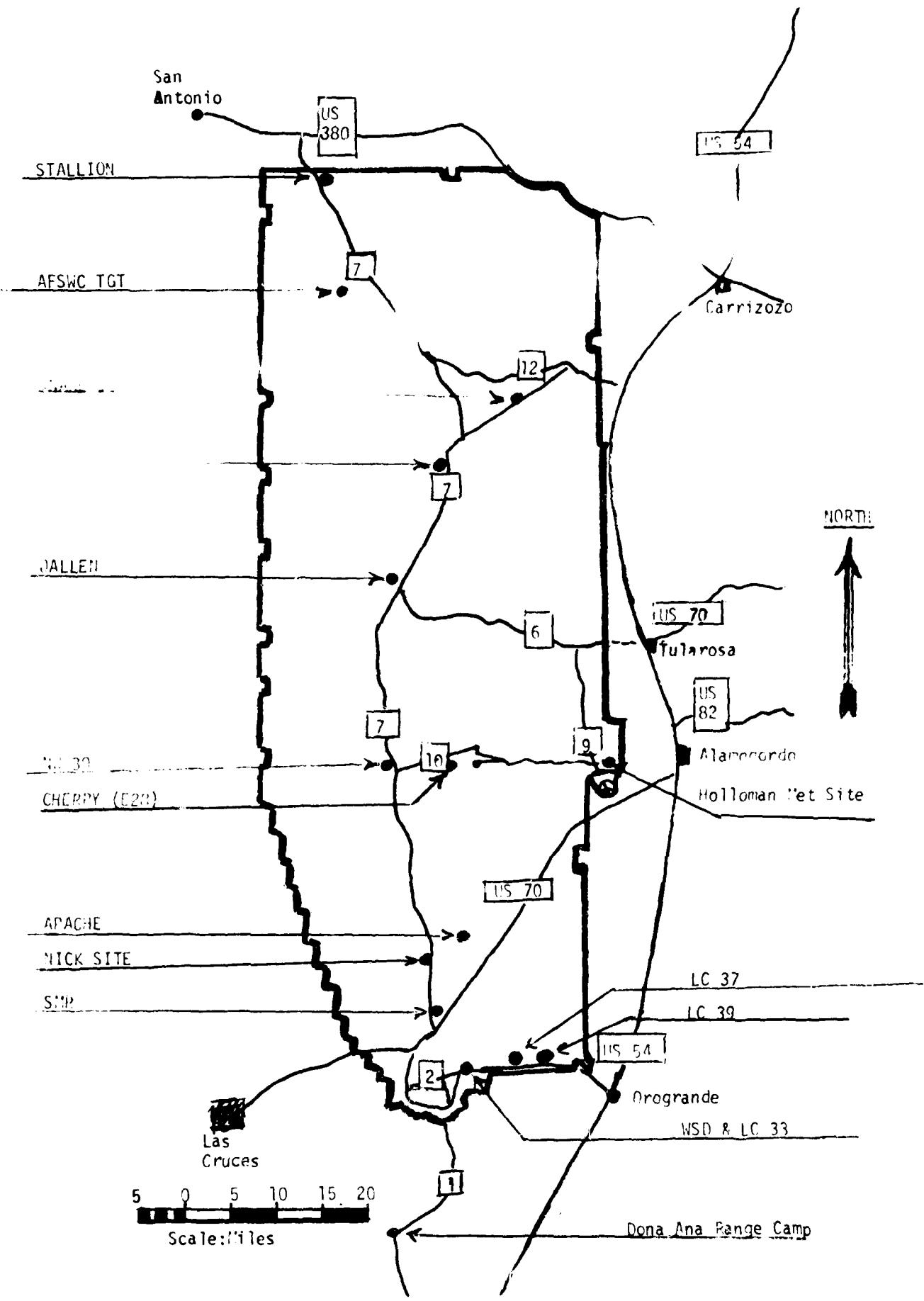


TABLE 1. Surface Observations taken at 0918 MST,
31 March 1981, at LC-33 (E&A) 20301A
Assault Breaker, Missile Number FTV-1,
Round Number V1G1.

ELEVATION	3983	FT/MSL
PRESSURE	882.4	MB
TEMPERATURE	16	°C
RELATIVE HUMIDITY	31	
DEW POINT	-01	°C
DENSITY	1.059	GM/M ³
WIND SPEED	12	KTS
WIND DIRECTION	015	DEGREES
CLOUD COVER	CLEAR	

PROJECT SURFACE OBSERVATION

TABLE 2

DATE 31 MARCH 1981
DAY MONTH YEAR

TIME HRS	PRESSURE mb	TEMPERATURE OF °C	DEW POINT OF °C	RELATIVE HUMIDITY %	DENSITY gm/m ³	WIND DIRECTION deg Tn	CHARACTER kts	VISIBILITY
0842	879.5	13.5	-13.2	14	1066	CALM		50
0912	879.6	13.9	-10.9	17	1064	270	02	50
0942	879.8	15.1	-11.3	15	1060	240	03	50

OBSTRUCTIONS TO VISIBILITY	CLOUDS			REMARKS				
	1st LAYER AMT	TYPE	2nd LAYER AMT	TYPE	3rd LAYER AMT	TYPE	HGT	
								CLEAR
								CLEAR
								CLEAR

PSYCHROMETRIC COMPUTATION

TIME:	0842	0912	0942
DRY BULB TEMP.	13.5	13.9	15.1
WET BULB TEMP.	03.5	04.1	04.6
WET BULB DEPR.	10.0	09.8	10.5
DEW POINT	-13.2	-10.9	-11.3
RELATIVE HUMID.	14	17	15

X=450,491.60 Y= 464,023.05 H= 4053.00

DELAS-MT-MS FORM 12
01 NOV 1980

Supersedes AMSEL-BL-MT-MS Form 12, 28 Aug 72
and all project surface observation forms, except DIVAD Surface Observation form.

TABLE 3 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1 X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL			POLE #2 X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL			POLE #3 X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	017	14	-30	022	12	-30	026	15
-20	027	14	-20	011	10	-20	035	15
-10	013	14	-10	027	09	-10	029	15
0.0	028	12	0.0	018	09	0.0	027	16
+10	036	09	+10	025	08	+10	033	14

TABLE 3a LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	027	11	-30	030	15
-20	021	09	-20	038	15
-10	019	10	-10	012	15
0.0	015	12	0.0	015	13
+10	009	12	+10	018	14

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	022	09	-30	016	12
-20	M	11	-20	010	13
-10	018	09	-10	010	12
0.0	024	09	0.0	018	12
+10	008	11	+10	015	14

PILOT BALLOON MEASURED WIND DATA

TABLE 4.

RELEASED FROM 1C-33 DATE 31 March 1981 TIME 0908 MST

COORDINATES (WSTM) X= 486,037.24 Y= 183,350.16 H= 3977.30

NOTE: WIND DIRECTIONS ARE REFERENCED TO
HEIGHTS ARE METERS AGL X OR FEET AGL :

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
sfc	015	11
60	014	12
120	013	12
180	013	13
240	012	12
300	012	13
360	010	14
420	360	12
480	349	12
540	336	11
600	324	12
660	313	12
720	305	14
780	298	15
840	292	16
900	288	18
960	284	20
1020	280	20
1080	276	19
1140	272	18
1200	268	18
1260	263	18

PILOT BALLOON MEASURED WIND DATA

TABLE 5

RELEASED FROM LC-33

DATE 31 March 1981

TIME 0918 MST

COORDINATES (WSTM) X = 486,037.24 Y = 186,350.16 H = 3977.30

NOTE: WIND DIRECTIONS ARE REFERENCED TO
HEIGHTS ARE METERS AGL X OR FEET AGL :

STATION ALTITUDE 3989.00 FEET MSL
 31 MAR. 61 0918 HRS MST
 ASCENSION NO. 214

SIGNIFICANT LEVEL DATA
 0900020214
 WHITE SANDS
 TABLE 6

GEODETIC COORDINATES
 32°40'04.3" LAT DEG
 106°37'03.1" LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
882.0	3989.0	16.0	-4.0	25.0
865.4	4515.3	12.6	-5.4	28.0
850.0	5009.1	11.9	-5.1	30.0
836.2	5458.2	11.2	-5.5	31.0
759.8	8055.3	5.0	-8.8	36.0
723.0	9379.2	2.3	-17.2	22.0
700.0	10232.9	-2	-20.4	20.0
678.0	11071.7	-6	-22.6	17.0
500.0	18916.6	-17.5	-37.2	16.0
458.4	20941.0	-21.6	-40.6	16.0
436.8	22103.0	-25.0	-40.9	21.0
408.4	23702.0	-27.7	-44.6	18.0
400.0	24192.3	-29.0	-45.7	18.0
381.2	25317.5	-32.3	-48.0	19.0
374.6	25722.0	-33.4	-49.0	19.0
323.8	29025.0	-42.7		
300.0	30708.5	-46.2		
250.0	34619.3	-55.3		
235.4	35880.2	-56.6		
210.8	38169.4	-59.8		
200.0	39251.5	-60.1		
179.8	41459.9	-56.4		
163.4	43466.3	-55.3		
150.0	45261.7	-56.4		
144.2	46088.6	-55.6		
137.2	47131.7	-56.6		
126.6	48810.0	-57.5		
116.8	50478.8	-60.0		
110.4	51641.8	-59.1		
100.0	53681.6	-60.5		
95.4	54649.9	-60.3		
63.6	62965.2	-61.8		
61.0	63824.0	-59.1		
56.0	65593.8	-59.4		
50.0	67948.2	-57.5		
46.2	69601.4	-56.6		
43.8	70730.9	-52.2		
41.2	72056.6	-53.3		
36.2	74808.9	-50.4		
31.2	78006.3	-51.7		

STATION ALTITUDE 3489.00 FEET MSL
31 MAR. 81 0918 HRS MST
ASCENSION NO. 214

SIGNIFICANT LEVEL DATA

09000,0214

WHITE SANDS

TABLE 6 cont'

ELEVATIC COORDINATES
32.40043 LAT DEG
106.37031 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEWPONT DEGREES CENTIGRAPH	REL.HUM. PERCENT
30.0	78849.4	-50.8	
26.0	61958.7	-47.0	
23.6	84087.0	-45.8	
20.0	87769.3	-41.5	
15.2	93995.0	-37.0	
10.0	103604.4	-36.4	
9.6	104543.5	-36.1	

STATION ALTITUDE 3489.00 FEET MSL
1 MAR. 81 091A HRS MST
AIRCRAFT NO. <14

UPPER AIR DATA
0900020214
WHITE SANDS
TABLE 7

ALTITUDE feet ft ft	PRESSURE millibars	TEMPERATURE DEGREES	AIR DEPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF WIND, DATA KNOTS DEGREES (IN)	INDEX OF REFRACTION
1069.0	882.0	16.0	-4.0	25.0	1060.6	663.1	.000257
1100.0	881.6	15.9	-4.0	25.1	1060.4	663.0	.000257
1100.0	865.9	12.7	-5.4	27.9	1053.4	659.3	.000254
1100.0	850.3	11.9	-5.1	30.0	1037.2	658.4	.000251
1100.0	834.9	11.1	-5.3	31.1	1021.3	657.4	.000247
1100.0	819.7	9.9	-6.0	32.0	1007.0	656.0	.000243
1100.0	804.7	8.7	-6.6	33.0	992.8	654.6	.000239
1100.0	790.0	7.5	-7.3	34.0	974.8	653.2	.000235
1100.0	775.5	6.3	-8.0	34.9	965.1	651.8	.000231
1100.0	761.4	5.1	-8.7	35.9	951.6	650.4	.000227
1100.0	747.2	4.1	-11.4	31.3	937.7	649.1	.000222
1100.0	733.4	3.1	-14.5	26.0	925.9	647.8	.000216
1100.0	719.7	1.9	-17.5	21.7	910.7	646.4	.000211
1100.0	706.2	.5	-19.5	20.5	898.5	644.7	.000207
1100.0	692.9	-.3	-21.1	19.0	884.2	643.7	.000203
1100.0	679.9	-.6	-22.4	17.3	868.4	643.4	.000199
1100.0	666.7	-.5	-23.4	16.9	854.6	642.2	.000195
1100.0	653.7	-.2	-24.3	16.9	841.4	640.9	.000192
12000.0	641.0	-.3	-25.3	16.8	828.4	639.6	.000189
13000.0	626.5	-.4	-26.2	16.8	815.6	638.3	.000185
13000.0	616.3	-.5	-27.1	16.7	803.0	637.0	.000182
14000.0	603.3	-.5	-28.1	16.6	790.6	635.7	.000179
14000.0	590.5	-.5	-29.0	16.6	778.4	634.4	.000176
15000.0	576.0	-.6	-30.0	16.5	766.5	633.1	.000173
15000.0	563.7	-.7	-30.9	16.4	754.7	631.8	.000171
16000.0	551.4	-.7	-31.9	16.4	743.1	630.4	.000168
16000.0	538.1	-.4	-32.8	16.3	731.7	629.1	.000165
16000.0	524.5	-.5	-33.7	16.2	720.5	627.8	.000162
17000.0	510.0	-.6	-34.7	16.2	709.4	626.5	.000160
17500.0	495.0	-.6	-35.6	16.1	698.6	625.1	.000157
18000.0	480.0	-.7	-35.6	16.0	687.9	623.8	.000155
18500.0	465.0	-.6	-36.6	16.0	677.1	622.5	.000152
19000.0	450.0	-.5	-37.5	16.0	665.9	621.3	.000150
19500.0	436.0	-.5	-38.3	16.0	654.9	620.2	.000147
20000.0	422.7	-.6	-39.1	16.0	644.1	619.0	.000145
20000.0	408.4	-.7	-39.9	16.0	635.6	617.7	.000142
21000.0	395.1	-.8	-40.6	16.3	624.2	615.9	.000140
21500.0	381.2	-.7	-40.6	18.4	615.0	614.1	.000138
22000.0	367.7	-.7	-40.8	20.6	604.6	612.9	.000136
22500.0	354.7	-.7	-41.8	20.3	594.1	611.9	.000133
23000.0	342.0	-.6	-43.0	19.3	587.0	51.0	

STATION ALTITUDE 3989.00 FT¹
 31 MAR. 81
 091A HRS.
 ASSEMBLION NO. 214

UPPER AIR DATA
 0900020214
 WHITE SANDS

TABLE 7 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEG. DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES FROM NORTH REGRETAIN)	SPEED KNOTS	INDEX OF REFRACTION
23500.0	411.9	-27.4	74.4	583.7	610.8	257.1	54.0	1.000131
24000.0	405.3	-28.5	74.5	574.2	609.4	257.2	56.6	1.000129
24500.0	394.8	-29.9	74.6	565.3	607.6	257.4	59.0	1.000127
25000.0	380.4	-31.4	74.7	556.7	605.8	257.1	60.4	1.000125
25500.0	376.2	-32.8	74.8	548.1	604.0	256.1	60.6	1.000123
26000.0	370.0	-34.2	75.0	539.4	602.2	254.9	60.6	1.000121
26500.0	362.0	-35.6	75.1	530.8	600.5	253.4	60.3	1.000119
27000.0	354.1	-37.0	75.6	522.3	598.7	252.9	60.3	1.000117
27500.0	346.3	-38.4	75.9	514.0	596.9	253.2	60.7	1.000115
28000.0	338.8	-39.8	76.3	505.8	595.1	253.0	61.1	1.000113
28500.0	331.4	-41.2	76.9	497.8	593.3	254.1	61.5	1.000111
29000.0	324.2	-42.6	78.8	489.9	591.5	253.3	61.7	1.000109
29500.0	316.9	-43.7	79.1	481.1	590.1	252.1	61.8	1.000107
30000.0	309.8	-44.7	79.4	472.5	588.8	250.4	61.4	1.000105
30500.0	302.0	-45.8	79.8	464.0	587.5	248.7	61.1	1.000103
31000.0	294.0	-46.9	80.0	455.6	586.0	247.7	60.9	1.000101
31500.0	289.1	-48.0	80.4	447.4	584.5	247.4	61.7	1.000100
32000.0	282.5	-49.2	80.9	439.4	583.0	247.1	64.9	1.000098
32500.0	276.0	-50.4	81.5	431.5	581.5	247.6	68.6	1.000096
33000.0	269.6	-51.5	82.0	423.8	580.0	248.2	72.7	1.000094
33500.0	264.4	-52.7	81.0	416.2	578.4	248.2	72.0	1.000093
34000.0	257.3	-53.9	80.8	408.8	576.9	248.0	70.0	1.000092
34500.0	251.4	-55.0	80.5	401.5	575.4	247.5	65.0	1.000089
35000.0	245.5	-55.7	80.3	393.3	574.5	246.5	60.0	1.000088
35500.0	239.7	-56.2	80.9	384.9	573.8	246.4	61.3	1.000086
36000.0	234.0	-56.8	81.8	376.8	573.1	247.3	63.3	1.000084
36500.0	228.5	-57.5	82.0	364.0	572.1	248.9	74.0	1.000082
37000.0	223.0	-58.2	81.4	351.4	571.2	250.2	84.9	1.000080
37500.0	217.7	-58.9	81.4	341.4	570.3	251.1	96.2	1.000079
38000.0	212.5	-59.6	81.6	331.6	569.4	251.5	103.9	1.000077
38500.0	207.4	-59.9	81.9	321.9	568.9	251.2	102.1	1.000075
39000.0	202.5	-60.0	82.4	311.4	568.7	250.1	94.4	1.000074
39500.0	197.6	-59.7	82.4	301.4	569.2	247.2	76.8	1.000072
40000.0	192.9	-58.8	82.4	291.4	570.3	243.1	60.2	1.000070
40500.0	188.3	-58.0	82.4	281.4	571.4	236.0	45.3	1.000068
41000.0	183.8	-57.2	82.4	271.4	572.5	234.0	40.4	1.000066
41500.0	179.5	-56.4	82.4	261.4	573.6	240.0	48.4	1.000064
42000.0	175.2	-56.1	82.4	251.4	573.9	245.7	62.7	1.000063
42500.0	171.1	-55.8	82.4	241.4	574.3	250.4	82.9	1.000061
43000.0	167.1	-55.6	82.4	231.4	574.7	252.7	95.9	1.000060

* ALL LAST ONE ASSUMED RELATIVE HUMIDITY VALUE USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.00 FEET MSL
 31 MAR. 81 0918 HRS MST
 ASCENSION NO. <14

UPPER AIR DATA

0900020214
 WHITE SANDS

GEODETIC COORDINATES
 32°49.043 LAT DEG
 106°37.033 LON DEG

TABLE 7 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT PERCENT	REL.HUM. GM/CUBIC METER	SPPFD WT	DATA SPOKE KNOTS	INDEX OF REFRACTION
43500.0	163.1	-55.3		260.9	575.0	250.0	1.000058
44000.0	159.3	-55.6		255.1	574.6	250.	1.000057
44500.0	155.5	-55.9		249.5	574.2	250.	1.000056
45000.0	151.9	-56.2		243.9	573.8	250.	1.000054
45500.0	148.3	-56.2		238.1	573.9	250.	1.000053
46000.0	144.8	-55.7		232.0	574.5	250.	1.000052
46500.0	141.4	-56.0		226.8	574.1	250.	1.000051
47000.0	138.1	-56.5		222.0	573.5	250.	1.000049
47500.0	134.8	-56.8		217.1	573.0	250.	1.000048
48000.0	131.6	-57.1		212.2	572.7	250.	1.000047
48500.0	128.5	-57.3		207.4	572.3	250.	1.000046
49000.0	125.4	-57.8		202.9	571.7	250.	1.000045
49500.0	122.5	-58.5		198.8	570.7	250.	1.000044
50000.0	119.5	-59.3		194.7	569.7	250.	1.000043
50500.0	116.7	-60.0		190.7	568.8	250.	1.000042
51000.0	113.9	-59.6		185.8	569.3	250.	1.000041
51500.0	111.2	-59.2		181.0	569.8	250.	1.000040
52000.0	108.5	-59.3		176.8	569.6	250.	1.000039
52500.0	105.9	-59.7		172.8	569.2	250.	1.000038
53000.0	103.4	-60.0		169.0	568.7	250.	1.000037
53500.0	100.9	-60.4		165.2	568.3	250.	1.000036
54000.0	98.5	-60.4		161.3	568.2	245.	1.000035
54500.0	96.1	-60.5		157.3	568.3	243.	1.000034
55000.0	93.8	-60.4		153.5	568.3	243.	1.000034
55500.0	91.5	-60.5		149.9	568.2	242.	1.000033
56000.0	89.3	-60.5		146.4	568.0	241.	1.000033
56500.0	87.2	-60.6		142.9	567.9	239.	1.000032
57000.0	85.1	-60.7		139.5	567.8	239.	1.000031
57500.0	83.0	-60.8		136.2	567.7	239.	1.000030
58000.0	81.0	-60.9		133.0	567.6	240.	1.000029
58500.0	79.1	-61.0		129.8	567.4	241.	1.000029
59000.0	77.2	-61.1		126.8	567.5	241.	1.000028
59500.0	75.1	-61.2		123.8	567.2	241.	1.000028
60000.0	73.0	-61.3		120.8	567.1	240.	1.000027
60500.0	71.7	-61.4		118.0	567.0	240.	1.000026
61000.0	70.0	-61.4		115.2	566.8	240.	1.000026
61500.0	68.3	-61.5		112.5	566.7	240.	1.000025
62000.0	66.7	-61.6		109.8	566.6	240.	1.000024
62500.0	65.1	-61.7		107.2	566.5	239.	1.000024
63000.0	63.5	-61.7		104.6	566.5	238.7	1.000024

STATION ALTITUDE 3489.00 FEET MSL
 31 MAR. 61 0918 HRS MST
 ASCENSION NO. 214

UPPER AIR DATA
 0900020214
 WHITE SANDS
 TABLE 7 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWEPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC	SPEED OF SOUND KNOTS	WIND DIRECTION IN DEGREES (TIN)	WIND SPEED KNOTS	INDEX OF REFRACTION
6350.0	62.0	-60.1	101.3	568.6	237.0	32.4	1.000023	
6400.0	60.5	-59.1	98.4	569.9	233.9	29.1	1.000022	
6450.0	59.0	-59.2	96.1	569.8	230.1	26.2	1.000021	
6500.0	57.6	-59.3	93.9	569.7	225.5	23.6	1.000021	
6550.0	56.3	-59.4	91.7	569.6	220.7	21.7	1.000020	
6600.0	54.9	-59.1	89.4	570.0	215.0	19.9	1.000020	
6650.0	53.6	-58.7	87.1	570.5	212.3	16.1	1.000019	
6700.0	52.3	-58.3	84.8	571.1	208.4	12.2	1.000019	
6750.0	51.1	-57.9	82.7	571.6	213.7	9.0	1.000018	
6800.0	49.9	-57.5	80.6	572.1	230.9	6.5	1.000018	
6850.0	48.7	-57.2	78.6	572.5	255.0	6.8	1.000017	
6900.0	47.5	-56.9	76.6	572.9	266.0	9.8	1.000017	
6950.0	46.4	-56.7	74.7	573.2	270.6	13.0	1.000017	
7000.0	45.3	-55.0	72.4	575.3	270.6	16.1	1.000016	
7050.0	44.3	-53.1	70.1	577.9	270.6	19.1	1.000016	
7100.0	43.3	-52.4	68.3	578.8	209.6	21.2	1.000015	
7150.0	42.2	-52.8	66.8	578.2	209.1	23.2	1.000015	
7200.0	41.3	-53.3	65.4	577.7	267.4	24.4	1.000015	
7250.0	40.3	-52.8	63.7	578.3	265.1	25.2	1.000014	
7300.0	39.4	-52.3	62.1	579.0	263.4	24.5	1.000014	
7350.0	38.5	-51.6	60.6	579.6	262.1	20.7	1.000013	
7400.0	37.6	-51.2	59.0	580.3	260.3	16.9	1.000013	
7450.0	36.7	-50.7	57.5	581.0	258.4	12.3	1.000013	
7500.0	40.3	-52.8	56.1	581.3	254.2	7.6	1.000013	
7550.0	35.9	-50.5	54.9	581.1	240.9	5.8	1.000012	
7600.0	35.1	-50.7	53.6	580.8	163.9	1.7	1.000012	
7650.0	34.3	-50.9	52.5	580.5	102.6	5.0	1.000012	
7700.0	32.7	-51.3	51.3	580.3	91.3	9.2	1.000011	
7750.0	31.9	-51.5	50.2	580.0	67.0	13.4	1.000011	
7800.0	31.2	-51.7	49.1	579.7	88.4	12.7	1.000011	
7850.0	30.5	-51.9	47.9	580.4	90.4	11.6	1.000011	
7900.0	30.5	-51.1	52.5	581.2	95.4	9.5	1.000010	
7950.0	29.8	-50.6	46.6	582.0	108.5	6.5	1.000010	
8000.0	29.1	-50.0	45.5	582.8	137.5	4.4	1.000010	
8050.0	28.5	-49.4	44.3	582.8	154.3	4.1	1.000010	
8100.0	27.8	-48.8	43.2	583.5	42.1	171.7	4.1	
8150.0	26.6	-47.6	41.0	584.3	186.6	4.5	1.000009	
8200.0	26.0	-47.0	40.0	585.1	198.4	5.1	1.000009	
8250.0	25.4	-46.7	39.0	586.3	207.3	5.9	1.000009	
8300.0	24.8	-46.4	38.1	586.6	216.6	7.3	1.000008	

STATION ALTITUDE 3989.00 FEET MSL
 31 MAR. 61 0918 HRS MST
 ASCENSION NO. 214

UPPER AIR DATA
 0900020214
 WHITE SANDS
 TABLE 7 cont!

GEOMETRIC PRESSURE ALTIITUDE MSL FEET	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TIN) KNOTS	INDEX OF REFRACTION
83500.0	24.2 -46.1	37.2	597.0	223.3	8.9	1.000008
84000.0	23.7 -45.8	36.3	597.3	228.4	10.5	1.000008
84500.0	23.2 -45.5	35.4	598.0	232.9	12.1	1.000008
85000.0	22.7 -44.7	34.5	598.8	236.3	13.8	1.000008
85500.0	22.1 -44.1	33.7	599.5	238.9	15.4	1.000007
86000.0	21.7 -43.6	32.9	590.3	241.0	17.1	1.000007
86500.0	21.2 -43.0	32.0	591.0	242.5	18.5	1.000007
87000.0	20.7 -42.4	31.3	591.8	243.1	19.3	1.000007
87500.0	20.2 -41.8	30.5	592.5	243.6	20.0	1.000007
88000.0	19.8 -41.3	29.8	593.2	243.6	19.8	1.000007
88500.0	19.4 -41.0	29.1	593.6	243.2	19.0	1.000006
89000.0	18.9 -40.6	28.4	594.1	242.7	18.2	1.000006
89500.0	18.5 -40.2	27.7	594.5	242.3	17.2	1.000006
90000.0	18.1 -39.9	27.1	595.0	241.9	16.2	1.000006
90500.0	17.7 -39.5	26.4	595.5	242.0	15.6	1.000006
91000.0	17.3 -39.2	25.8	595.9	242.9	15.6	1.000006
91500.0	17.0 -38.8	25.2	596.4	243.4	15.7	1.000006
92000.0	16.6 -38.4	24.6	596.8	244.0	14.2	1.000005
92500.0	16.2 -38.1	24.1	597.3	243.4	11.4	1.000005
93000.0	15.9 -37.7	23.5	597.8	242.5	8.5	1.000005
93500.0	15.5 -37.4	23.0	598.2	225.7	2.7	1.000005
94000.0	15.2 -37.0	22.4	598.7	63.8	5.0	1.000005
94500.0	14.9 -37.0	21.9	598.7	76.0	12.3	1.000005
95000.0	14.5 -36.9	21.5	598.8	75.5	17.9	1.000005
95500.0	14.2 -36.9	21.0	598.8	72.0	23.1	1.000005
96000.0	13.9 -36.9	20.5	598.8	71.1	28.3	1.000005
96500.0	13.6 -36.8	20.1	598.9	70.6	25.8	1.000004
97000.0	13.3 -36.8	19.7	598.9	69.4	22.8	1.000004
97500.0	13.0 -36.8	19.2	598.9	69.3	19.4	1.000004
98000.0	12.8 -36.7	18.8	599.0	78.7	8.6	1.000004
98500.0	12.5 -36.7	18.4	599.0	201.3	3.8	1.000004
99000.0	12.2 -36.7	18.0	599.1	250.0	13.6	1.000004
99500.0	12.0 -36.7	17.6	599.1	228.9	20.9	1.000004
100000.0	11.7 -36.6	17.2	599.1	228.3	28.3	1.000004
100500.0	11.4 -36.6	16.9	599.2	227.0	33.2	1.000004
101000.0	11.2 -36.6	16.5	599.2	222.8	31.9	1.000004
101500.0	11.0 -36.5	16.1	599.3	218.4	30.7	1.000004
102000.0	10.7 -36.5	15.8	599.3			1.000004
102500.0	10.5 -36.5	15.4	599.3			1.000003
103000.0	10.3 -36.4	15.1	599.4			1.000003

EARTH COORDINATES
 32°40'04.3 LAT DEG
 106°37'03.3 LON DEG

STATION ALTITUDE 3989.00 FEET MSL
31 MAR. 81 0918 HRS MST
ASCENSION NO. 214

UPPER AIR DATA
0900020214
WHITE SANDS

TABLE 7 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEW-POINT DEGREES CENTIGRADE	REL.HUM. PERCENT	SPEED OF SOUND METERS KNOTS	WIND DATA DIRECTION DEGREES (TRUE)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
103500.0	10.0	-36.4	14.8	599.4	14.8	599.4	1.00003
104000.0	9.8	-36.3	14.5	599.6	14.5	599.6	1.00003
104500.0	9.6	-36.1	14.1	599.8	14.1	599.8	1.00003

GEODETIC COORDINATES
32°40'04.1 LAT DEG
106°37'03.1 LON DEG

STATION ALTITUDE 3989.00 FEET MSL
 31 MAR. 81 091A IIRS MST
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MANDATORY LEVELS
 0300020214
 WHITE CANUS
 TABLE 8

(LODGETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL HEIGHT	TEMPERATURE		RH% MIN. PERCENT	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS
		AIR DEGREES	DEWPNT CENTIGRADE			
850.0	5005.	11.9	-5.1	30.	336.0	11.9
800.0	6660.	8.3	-6.8	33.	295.9	21.3
750.0	8395.	4.3	-10.8	32.	280.2	27.0
700.0	10225.	-2.2	-20.4	20.	275.3	32.9
650.0	12161.	-2.9	-24.6	17.	273.2	34.9
600.0	14223.	-7.4	-28.4	17.	266.8	37.4
550.0	16426.	-12.2	-32.6	16.	262.5	39.4
500.0	18792.	-17.5	-37.2	16.	260.3	46.5
450.0	21356.	-22.9	-40.6	16.	257.7	44.2
400.0	24152.	-29.0	-45.7	18.	257.3	57.5
350.0	27229.	-37.7	-57.7	10.**	253.1	60.5
300.0	30648.	-46.2			248.3	61.0
250.0	34545.	-55.3			247.1	64.0
200.0	39158.	-60.1			248.9	88.2
175.0	41921.	-56.1			245.7	62.3
150.0	45141.	-56.4			255.2	62.6
125.0	48935.	-57.9			253.9	56.1
100.0	53517.	-60.5			245.2	39.9
80.0	58076.	-61.0			240.8	44.6
70.0	60795.	-61.4			240.8	48.7
60.0	63938.	-59.2			233.0	28.3
50.0	67694.	-57.5			227.1	6.8
40.0	72376.	-52.6			264.6	25.4
30.0	78513.	-50.8			92.4	10.7
25.0	82450.	-46.5			212.9	6.7
20.0	87358.	-41.5			243.8	20.2
15.0	93827.	-37.0			78.2	
10.0	103041.	-36.4			H.7	

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.37 FLET MSL
31 MAR. 61 0755 HRS MST
ASCENSION NO. 16

SIG. IDENTICANT LF-Vt I
09001,0001,
L.C.-37
TABLE 9

GEODETIC COORDINATES
32°40'17.5 LAT DEG
106°31'23.2 LON DEG

PRESSURE MILLIBARS	GLUMETRIC ALTITUDE MSL FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DEWPOINT DEGREES CENTIGRADE	R.H. PERCENT
880.3	4051.4	13.6	-1.9	34.0
873.2	4274.5	11.8	-4.3	32.0
862.6	4609.3	10.9	-5.1	32.0
850.0	5012.2	11.0	-5.5	31.0
793.0	6901.0	7.4	-6.7	36.0
734.8	8942.5	2.0	-7.6	49.0
725.2	9291.1	1.9	-11.6	36.0
700.0	10224.6	-3	-16.1	29.0
678.4	11045.2	-2.4	-18.8	27.0
660.0	11761.9	-2.7	-21.9	21.0
579.8	15100.0	+8.6	-27.4	20.0
500.0	18808.0	-17.8	-35.7	19.0
479.2	19850.5	-19.2	-36.9	19.0
417.8	23147.0	-28.1	-41.9	25.0
400.0	24170.2	-30.5	-43.0	28.0
388.6	24844.9	-31.6	-44.6	26.0
347.2	27428.8	-38.8	-49.7	30.0
333.8	28313.3	-41.3		
300.0	30676.2	-45.9		
265.6	33306.1	-52.6		
250.0	34586.2	-55.2		
226.6	36634.6	-59.0		
211.0	38104.1	-60.3		
200.0	39206.7	-59.2		
191.0	40159.4	-58.3		
186.4	40664.2	-59.0		
181.4	41228.4	-57.3		
168.0	42835.6	-55.1		
163.6	43393.3	-55.9		
150.0	45213.9	-55.9		
141.8	46392.5	-56.2		
114.2	50867.2	-62.1		
106.8	52234.3	-61.8		
100.0	53574.5	-62.9		
96.0	54403.2	-63.5		
79.2	58330.7	-60.6		
70.0	60862.6	-61.6		
59.8	64110.3	-58.3		
55.0	65837.0	-61.4		
50.9	67423.6	-61.6		

STATION ALTITUDE 4651.37 FEET MSL
31 MAR. 81 0755 HRS MST
ASCENSION NO. 16

SIGNIFICANT LEVEL DATA
09001.0016
LC-37
TABLE 9 cont'

GEODETIC COORDINATES
32°40'17.5" LAT UEG
106°31'23.2" LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE DEGREES	REL.HUM. PERCENT
50.0	67790.1	-60.1	
43.2	70851.9	-53.4	
40.5	72218.6	-55.4	
37.5	73859.1	-50.6	
30.0	78655.8	-51.8	
24.2	83356.6	-44.8	
21.4	86048.7	-46.4	
20.0	87541.3	-44.8	
15.4	93425.9	-37.2	
13.6	96284.1	-35.1	
12.4	98409.6	-37.0	
10.0	103341.1	-37.0	
7.0	111509.3	-37.8	
6.6	112860.0	-36.1	
6.6	112860.0	-36.1	

STATION ALTITUDE 4051.37 FEET MSL
 31 MAR. 01 0755 IRS MST
 ASCENSION NO. 16

UPPER AIR DATA
 09001600016
 LC-37
 TABLE 10

EODETIC COORDINATES
 32°40'17.5 LAT DEG
 106°31'23.2 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	INDEX OF REFRACTION
		AIR DEPOINT DEGREES	PERCENT	GM/CUBIC METER	KNOTS	
4051.4	860.3	13.6	-1.9	34.0	1067.0	1.000262
4500.0	866.0	11.2	-4.9	32.0	1054.1	1.000256
5000.0	850.4	11.0	-5.4	31.0	1046.7	1.000251
5500.0	834.9	10.1	-5.7	32.3	1025.1	1.000247
6000.0	819.7	9.1	-6.0	33.6	1004.8	1.000243
6500.0	804.8	8.2	-6.4	34.9	994.8	1.000240
7000.0	790.1	7.1	-6.7	36.6	980.2	1.000236
7500.0	775.5	5.8	-6.8	39.8	966.6	1.000233
8000.0	761.1	4.5	-7.0	43.0	953.3	1.000230
8500.0	747.0	3.2	-7.3	46.2	940.1	1.000227
9000.0	733.2	2.0	-8.2	46.9	926.8	1.000223
9500.0	719.5	1.4	-12.5	34.4	911.6	1.000219
10000.0	706.0	.2	-15.0	30.7	898.7	1.000215
10500.0	692.7	-1.0	-17.0	28.3	885.9	1.000210
11000.0	679.6	-2.3	-18.7	27.1	873.3	1.000206
11500.0	666.7	-2.6	-20.7	23.2	857.8	1.000202
12000.0	653.9	-3.1	-22.3	20.9	843.1	1.000197
12500.0	641.4	-4.9	-23.2	20.8	829.7	1.000193
13000.0	629.0	-5.8	-24.0	20.6	816.4	1.000189
13500.0	616.9	-6.7	-24.8	20.5	803.9	1.000185
14000.0	605.1	-7.5	-25.6	20.3	790.6	1.000180
14500.0	593.5	-8.4	-26.5	20.2	778.0	1.000177
15000.0	582.1	-9.6	-27.3	20.0	765.6	1.000174
15500.0	570.6	-10.8	-28.3	19.9	753.9	1.000171
16000.0	559.3	-12.1	-29.5	19.8	742.5	1.000168
16500.0	548.0	-13.3	-31.7	19.6	731.3	1.000166
17000.0	537.4	-14.8	-32.8	19.5	720.3	1.000163
17500.0	526.8	-15.8	-33.9	19.2	709.5	1.000160
18000.0	516.4	-17.0	-35.0	19.1	698.8	1.000157
18500.0	506.2	-18.1	-35.9	19.0	677.4	1.000154
19000.0	496.1	-19.7	-36.5	19.0	665.4	1.000152
19500.0	486.1	-20.8	-37.1	19.3	654.2	1.000150
20000.0	476.2	-21.0	-37.8	20.2	644.2	1.000147
20500.0	466.4	-22.3	-38.5	21.1	634.3	1.000145
21000.0	456.8	-23.7	-39.3	22.0	624.6	1.000143
21500.0	447.4	-25.0	-40.1	22.9	615.4	1.000140
22000.0	438.2	-26.4	-40.9	23.8	605.7	1.000138
22500.0	429.2	-27.7	-41.7	24.7	596.5	1.000136
23000.0	420.4	-28.9	-42.5	26.0	587.0	1.000134
23500.0	411.6					1.000132

STATION ALTITUDE 4051.37 FEET MSL
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TABLE 10 cont'

GEODETIC COORDINATES
32°40'17.5 LAT DEG
106°31'23.2 LONG DEG

GEOMETRIC ALTITUDE ASL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPPOINT CENTIGRADE	REL.HUM. PERCENT	GMI/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION, HEIGHTS (IN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
24000.0	402.9	-30.1	-42.8	27.5	577.4	607.4	253.1	54.0	1.000129
24500.0	394.4	-31.0	-43.8	27.0	567.4	606.2	251.8	54.9	1.000127
25000.0	386.0	-32.0	-44.9	26.2	557.6	605.0	250.9	55.8	1.000125
25500.0	377.7	-33.4	-45.9	27.0	548.8	603.2	250.3	56.8	1.000123
26000.0	369.5	-34.8	-46.9	27.8	540.1	601.5	249.7	57.6	1.000121
26500.0	361.5	-36.2	-47.9	28.6	531.5	599.7	249.2	58.1	1.000119
27000.0	353.6	-37.6	-48.9	29.3	523.2	597.9	248.4	58.7	1.000117
27500.0	346.1	-39.0	-50.6	27.6**	514.9	596.1	247.6	59.4	1.000115
28000.0	338.5	-40.4	-59.6	10.6**	506.6	594.5	246.5	60.4	1.000113
28500.0	331.6	-41.7			498.1	592.7	245.4	61.5	1.000111
29000.0	325.6	-42.6			489.0	591.5	244.5	62.6	1.000109
29500.0	318.4	-43.6			480.2	590.2	244.0	63.5	1.000107
30000.0	309.3	-44.6			471.4	589.0	244.7	63.8	1.000105
30500.0	302.4	-45.6			462.9	587.7	245.5	63.9	1.000103
31000.0	295.5	-46.7			454.7	586.2	246.6	63.4	1.000101
31500.0	288.6	-48.0			446.8	584.6	247.5	63.2	1.000100
32000.0	282.2	-49.3			439.1	582.9	247.7	63.5	1.000098
32500.0	275.7	-50.5			431.5	581.2	247.7	63.9	1.000096
33000.0	269.4	-51.8			424.0	579.6	247.6	64.8	1.000094
33500.0	263.2	-53.0			416.4	578.0	247.5	66.4	1.000093
34000.0	257.0	-54.0			408.6	576.7	247.5	68.9	1.000091
34500.0	251.0	-55.0			401.9	575.4	247.6	71.3	1.000089
35000.0	245.1	-56.0			393.1	574.1	247.6	73.6	1.000088
35500.0	239.3	-56.9			385.5	572.9	247.4	74.7	1.000086
36000.0	233.6	-57.8			377.9	571.7	246.9	74.4	1.000084
36500.0	228.1	-58.8			370.6	570.4	246.3	73.8	1.000083
37000.0	222.6	-59.3			362.7	569.7	245.5	72.9	1.000081
37500.0	217.3	-59.8			354.7	569.1	244.6	72.3	1.000079
38000.0	212.1	-60.2			346.9	568.5	244.2	72.5	1.000077
38500.0	207.0	-59.9			338.1	568.9	243.8	73.2	1.000075
39000.0	202.0	-59.4			329.3	569.6	243.7	74.7	1.000073
39500.0	197.2	-58.9			321.7	570.2	243.8	76.2	1.000071
40000.0	192.5	-58.5			312.3	570.8	244.4	77.7	1.000070
40500.0	187.9	-58.6			305.3	570.4	244.9	78.8	1.000068
41000.0	183.4	-58.0			297.0	571.4	245.3	78.7	1.000066
41500.0	179.1	-56.9			288.5	572.9	245.6	78.5	1.000064
42000.0	174.8	-56.2			280.8	573.8	245.7	78.0	1.000063
42500.0	170.7	-55.6			273.3	574.7	245.8	77.4	1.000061
43000.0	166.7	-55.3			266.6	575.0	246.0	78.9	1.000059
43500.0	162.8	-55.9			261.0	574.2	247.4	80.5	1.000058

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.37 FEET MSL
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 TABLE 10 cont'

(EODETIC COORDINATES
 32.40175 LAT DEG
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GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWEPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES(TIN)	WIND SPEED KNOTS	INDEX OF REFRACTION
44000.0	158.9	-55.9	254.9	574.2	248.5	01.3	1.000057	
44500.0	155.2	-55.9	248.9	574.2	249.7	02.0	1.000055	
45000.0	151.5	-55.9	243.0	574.2	250.5	00.2	1.000054	
45500.0	148.0	-56.0	237.3	574.1	251.4	77.1	1.000053	
46000.0	144.5	-56.1	231.9	574.0	252.0	73.9	1.000052	
46500.0	141.1	-56.3	226.7	573.6	252.2	70.7	1.000050	
47000.0	137.7	-57.0	221.9	572.8	252.5	67.7	1.000049	
47500.0	134.4	-57.7	217.3	571.9	252.0	66.0	1.000048	
48000.0	131.2	-58.3	212.7	571.0	251.6	64.4	1.000047	
48500.0	128.1	-59.0	208.3	570.1	251.1	63.0	1.000046	
49000.0	125.0	-59.6	203.9	569.3	250.7	61.7	1.000045	
49500.0	122.0	-60.3	199.7	568.4	250.1	60.4	1.000044	
50000.0	119.1	-61.0	195.5	567.5	248.8	58.2	1.000044	
50500.0	116.2	-61.6	191.4	566.6	247.3	56.0	1.000043	
51000.0	113.5	-62.1	187.3	566.0	245.5	54.8	1.000042	
51500.0	110.7	-62.0	182.6	566.1	243.4	54.4	1.000041	
52000.0	108.0	-61.9	178.1	566.3	242.3	55.1	1.000040	
52500.0	105.4	-62.0	173.9	566.1	243.1	57.7	1.000039	
53000.0	102.9	-62.4	170.0	565.5	244.0	60.2	1.000038	
53500.0	100.4	-62.8	166.2	565.0	245.5	61.7	1.000037	
54000.0	97.9	-63.1	162.4	564.6	246.9	63.3	1.000036	
54500.0	95.5	-63.2	158.6	564.4	248.1	64.8	1.000035	
55000.0	93.2	-62.9	154.5	564.9	249.3	66.2	1.000034	
55500.0	91.0	-62.5	150.5	565.4	250.2	66.5	1.000034	
56000.0	88.8	-62.2	146.6	565.8	251.2	66.8	1.000033	
56500.0	86.6	-61.9	142.8	566.3	251.3	64.3	1.000032	
57000.0	84.5	-61.5	139.1	566.7	251.0	60.6	1.000031	
57500.0	82.5	-61.2	135.6	567.2	250.3	57.9	1.000030	
58000.0	80.5	-60.8	132.1	567.7	249.3	56.1	1.000029	
58500.0	78.5	-60.7	128.8	567.9	248.5	55.2	1.000029	
59000.0	76.7	-60.9	125.6	567.6	248.2	56.2	1.000028	
59500.0	74.8	-61.1	122.9	567.4	247.9	57.2	1.000027	
60000.0	73.0	-61.3	120.0	567.1	247.7	57.4	1.000027	
60500.0	71.2	-61.5	117.2	566.8	247.5	57.4	1.000026	
61000.0	69.5	-61.5	114.4	566.8	247.3	56.8	1.000025	
61500.0	67.9	-61.0	111.4	567.5	246.9	53.9	1.000025	
62000.0	66.2	-60.4	108.5	568.2	246.5	50.9	1.000024	
62500.0	64.7	-59.9	105.6	568.9	245.7	45.4	1.000024	
63000.0	63.1	-59.4	102.9	569.5	244.4	38.3	1.000023	
63500.0	61.6	-58.9	100.2	570.2	242.5	31.2	1.000022	

STATION ALTITUDE 4051.37 FEET MSL
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 TABLE 10 cont'

GEODETIC COORDINATES
 32°40'17.5 LAT DEG
 106°31'23.2 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	AIR DEPOINT PERCENT	REL.HUM. PERCENT	SPEED OF SOUND METERS	WIND DATA DIRECTION DEGREES (IN)	SPEED KNOTS	INDEX OF REFRACTION
64000.0	60.1	-58.4			97.5	570.9	240.0	25.0
64500.0	56.7	-59.0			95.5	570.1	235.8	18.9
65000.0	57.3	-59.9			95.6	568.9	229.2	13.7
65500.0	55.9	-60.8			91.7	567.7	224.5	11.6
66000.0	54.6	-61.4			89.8	566.9	217.9	9.6
66500.0	53.2	-61.5			87.6	566.8	213.7	8.7
67000.0	52.0	-61.5			85.5	566.7	215.4	9.1
67500.0	50.7	-61.3			83.4	567.1	217.0	9.5
68000.0	49.5	-59.6			80.8	569.3	219.4	10.1
68500.0	46.3	-58.5			78.5	570.7	221.9	10.8
69000.0	47.2	-57.5			76.2	572.2	224.0	11.6
69500.0	46.1	-56.4			74.0	573.6	226.9	12.2
70000.0	45.0	-55.3			71.9	575.1	229.7	12.8
70500.0	43.9	-54.2			69.9	576.5	232.6	13.4
71000.0	42.9	-53.6			68.1	577.2	236.7	13.9
71500.0	41.9	-54.3			66.7	576.3	240.4	14.5
72000.0	40.9	-55.1			65.4	575.3	243.6	14.4
72500.0	40.0	-54.6			63.7	576.0	247.2	13.6
73000.0	39.0	-53.1			61.8	577.9	251.1	12.8
73500.0	38.1	-51.7			60.0	579.8	254.9	11.7
74000.0	37.3	-50.6			58.3	581.1	259.4	10.4
74500.0	36.4	-50.4			57.0	581.0	265.2	9.2
75000.0	35.6	-50.9			55.7	580.8	266.7	8.8
75500.0	34.7	-51.0			54.5	580.6	268.2	8.4
76000.0	33.9	-51.1			53.3	580.5	269.5	8.0
76500.0	33.2	-51.3			52.1	580.3	269.2	7.4
77000.0	32.4	-51.4			50.9	580.2	268.6	6.8
77500.0	31.7	-51.5			49.8	581.3	269.1	6.0
78000.0	30.9	-51.6			48.6	579.8	271.9	4.9
78500.0	30.2	-51.8			47.5	579.7	276.4	3.7
79000.0	29.5	-51.3			46.4	580.3	286.2	2.5
79500.0	28.9	-50.5			45.2	581.3	319.4	1.4
80000.0	28.2	-49.8			44.0	582.2	24.1	1.5
80500.0	27.6	-49.0			42.8	583.2	50.1	2.6
81000.0	26.9	-48.3			41.7	584.2	58.7	3.5
81500.0	26.3	-47.5			40.7	585.2	63.7	4.5
82000.0	25.7	-46.8			39.6	586.1	66.1	5.0
82500.0	25.1	-46.1			38.6	587.1	65.2	3.4
83000.0	24.6	-45.3			37.6	588.1	62.9	1.8
83500.0	24.0	-44.9			36.7	588.6	333.3	.2

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TABLE 10 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	R.H. PERCENT	DENSITY GM/CUBIC	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
84000.0	23.5	-45.2	35.9	5.08.2	254.7	3.0	1.000008	
84500.0	23.0	-45.5	35.1	5.07.8	252.9	6.0	1.000008	
85000.0	22.4	-45.8	34.4	5.07.4	252.3	8.7	1.000008	
85500.0	21.9	-46.1	33.7	5.07.1	252.2	9.4	1.000007	
86000.0	21.4	-46.4	32.9	5.06.7	252.1	10.1	1.000007	
86500.0	21.0	-45.9	32.1	5.07.3	252.0	10.6	1.000007	
87000.0	20.5	-45.4	31.3	5.08.0	251.1	9.3	1.000007	
87500.0	20.0	-44.8	30.6	5.08.6	250.0	8.0	1.000007	
88000.0	19.6	-44.2	29.8	5.09.5	248.5	6.7	1.000007	
88500.0	19.2	-43.6	29.1	5.00.3	245.5	6.1	1.000006	
89000.0	18.7	-42.9	28.4	5.01.1	241.9	5.6	1.000006	
89500.0	18.3	-42.3	27.7	5.02.0	237.7	5.1	1.000006	
90000.0	17.9	-41.6	27.0	5.02.8	234.4	5.0	1.000006	
90500.0	17.5	-41.0	26.3	5.03.6	231.3	5.0	1.000006	
91000.0	17.2	-40.3	25.7	5.04.4	228.2	4.9	1.000006	
91500.0	16.8	-39.7	25.0	5.05.3	223.4	4.6	1.000006	
92000.0	16.4	-39.0	24.4	5.06.1	216.2	4.0	1.000005	
92500.0	16.0	-38.4	23.8	5.06.9	207.0	3.6	1.000005	
93000.0	15.7	-37.8	23.2	5.07.7	194.3	3.2	1.000005	
93500.0	15.4	-37.1	22.7	5.08.5	176.1	2.9	1.000005	
94000.0	15.0	-36.6	22.1	5.09.0	156.7	3.0	1.000005	
94500.0	14.7	-36.4	21.6	5.09.4	140.1	3.4	1.000005	
95000.0	14.4	-36.0	21.1	5.09.9	130.1	3.7	1.000005	
95500.0	14.1	-35.7	20.6	6.00.3	122.1	4.2	1.000004	
96000.0	13.8	-35.3	20.2	6.00.8	115.7	4.7	1.000004	
96500.0	13.5	-35.3	19.7	6.00.8	118.3	4.8	1.000004	
97000.0	13.2	-35.7	19.3	6.00.3	124.1	4.8	1.000004	
97500.0	12.9	-36.2	19.0	5.09.7	129.8	4.9	1.000004	
98000.0	12.6	-36.6	18.6	5.09.1	139.5	5.0	1.000004	
98500.0	12.4	-37.0	18.2	5.08.7	154.3	5.4	1.000004	
99000.0	12.1	-37.0	17.8	5.08.7	166.4	6.1	1.000004	
99500.0	11.8	-37.0	17.4	5.08.7	175.3	7.0	1.000004	
100000.0	11.6	-37.0	17.1	5.08.7	179.0	7.1	1.000004	
100500.0	11.3	-37.0	16.7	5.08.7	182.6	7.3	1.000004	
101000.0	11.1	-37.0	16.3	5.08.7	186.0	7.5	1.000004	
101500.0	10.8	-37.0	16.0	5.08.7	186.0	8.7	1.000004	
102000.0	10.6	-37.0	15.6	5.08.7	185.2	10.1	1.000003	
102500.0	10.4	-37.0	15.3	5.08.7	184.6	11.5	1.000003	
103000.0	10.1	-37.0	15.0	5.08.7	182.7	13.3	1.000003	
103500.0	9.9	-37.0	14.7	5.08.7	179.9	15.8	1.000003	

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TABLE 10 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF WIND DATA KNOTS	WIND DATA DIRECTION DEGREES (IN)	SPEED KNOTS	INDEX OF REFRACTION
104000.0	9.7	-37.1	14.3	598.6	177.8	18.3	1.00003	
104500.0	9.5	-37.1	14.0	598.5	176.4	20.4	1.00003	
105000.0	9.3	-37.2	13.7	598.5	176.2	20.4	1.00003	
105500.0	9.1	-37.2	13.4	598.4	176.0	20.4	1.00003	
106000.0	9.9	-37.3	13.1	598.3	175.8	20.4	1.00003	
106500.0	8.7	-37.3	12.9	598.3	178.2	20.0	1.00003	
107000.0	8.5	-37.4	12.6	598.2	181.2	19.4	1.00003	
107500.0	8.3	-37.4	12.3	598.2	184.4	19.0	1.00003	
108000.0	8.2	-37.5	12.1	598.1	184.4	19.6	1.00003	
108500.0	8.0	-37.5	11.8	598.0	182.0	21.1	1.00003	
109000.0	7.8	-37.6	11.5	598.0	180.0	22.7	1.00003	
109500.0	7.6	-37.6	11.3	597.9	179.7	23.9	1.00003	
110000.0	7.5	-37.7	11.1	597.8	184.6	23.8	1.00002	
110500.0	7.3	-37.7	10.8	597.8	189.5	24.0	1.00002	
111000.0	7.2	-37.8	10.6	597.7	194.3	24.3	1.00002	
111500.0	7.0	-37.8	10.4	597.7			1.00002	
112000.0	6.9	-37.2	10.1	598.4			1.00002	
112500.0	6.7	-36.6	9.9	599.2			1.00002	

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

STATION ALTITUDE 4051.37 FEET MSL
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MANDATORY LEVELS
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 TABLE 11

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE DEGREES	AIR DEMPNT CENTIGRADE	HGT. + HUM. PERCENT	WIND DATA DIRECTION DEGREES (IN)	SPEED KNOTS
850.0	5009.	11.0	-5.5	31.	341.5	6.7
800.0	6658.	7.9	-6.5	35.	294.1	14.2
750.0	8390.	3.5	-7.2	46.	283.2	26.5
700.0	10215.	-3	-16.1	29.	277.2	29.8
650.0	12146.	-3.4	-22.6	21.	270.1	32.7
600.0	14208.	-7.0	-26.0	20.	266.9	38.0
550.0	16415.	-11.9	-30.4	20.	261.1	38.7
500.0	18782.	-17.6	-35.7	19.	258.5	45.3
450.0	21344.	-23.3	-39.1	22.	258.9	49.6
400.0	24130.	-30.5	-43.0	28.	252.7	54.3
350.0	27198.	-38.3	-49.4	30.	248.0	54.0
300.0	30616.	-45.9			245.0	63.7
250.0	34512.	-55.2			247.6	71.6
200.0	39114.	-59.2			243.6	75.3
175.0	41873.	-56.3			245.7	78.0
150.0	45094.	-55.9			250.8	79.0
125.0	48875.	-59.6			250.7	61.8
100.0	53411.	-62.9			245.6	61.9
80.0	57934.	-60.7			249.1	55.7
70.0	60655.	-61.6			247.4	57.4
60.0	63813.	-58.4			239.9	24.9
50.0	67537.	-50.1			218.1	9.7
40.0	72194.	-54.6			246.8	13.7
30.0	78321.	-51.8			277.9	3.4
25.0	82251.	-45.9			65.0	3.2
20.0	87132.	-44.8			250.1	4.0
15.0	93560.	-36.8			157.4	5.0
10.0	102780.	-37.0			161.0	14.6
7.0	110861.	-37.8				

EODETIC COORDINATES
 32°40'17.5" LAT UEG
 106°31'23.2" LON DEG

STATION ALTITUDE 4126.59 FEET MSL
 31 MAR. 61 0655 HRS MST
 ASCENSION NO. 53

SIGNIFICANT LEVEL DATA
 0900010053
 HOLLOWMAN
 TABLE 12

GEODETIC COORDINATES
 32° 88' 86" LAT DEG
 106° 09' 96" LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE DEGREES	AIR DEWPOINT CENTIGRADE	REL. HUM. PERCENT
876.4	4126.6	5.6	-5.7	44.0
866.2	4444.3	11.3	-2.8	37.0
850.0	4961.3	10.6	-3.8	36.0
700.0	10156.8	-1.6	-11.1	48.0
668.4	11360.3	-3.9	-17.1	35.0
659.0	11727.8	-3.7	-21.8	23.0
629.3	12920.1	-5.7	-25.0	20.0
500.0	18696.9	-19.1	-35.3	27.0
472.6	20071.2	-21.0	-36.2	24.0
400.0	24040.9	-31.3	-42.8	31.0
388.4	24725.8	-32.1	-42.1	36.0
334.4	28142.9	-40.6	-49.3	38.0
327.9	28583.0	-40.6		
300.0	30555.0	-45.7		
250.0	34475.2	-54.7		
232.8	35966.7	-57.8		
228.0	36401.2	-56.2		
200.0	39120.1	-60.0		
185.8	40636.5	-59.6		
171.3	42317.7	-58.0		
163.8	43245.4	-59.0		
162.5	43411.1	-56.7		
150.0	45082.5	-57.1		
128.0	48372.4	-59.6		
117.2	50190.8	-59.6		
109.1	51674.6	-57.8		
100.0	53478.6	-59.8		
81.2	57744.9	-62.6		
70.0	60782.3	-60.4		
63.1	62928.1	-58.3		
55.4	65631.1	-58.6		
50.0	67741.3	-62.4		
43.8	70504.4	-52.6		
39.2	72859.9	-55.1		
33.6	76152.0	-50.1		
30.0	78593.2	-51.4		
22.8	84580.5	-44.6		
20.0	87475.2	-45.9		
17.0	91076.9	-43.3		

STATION ALTITUDE 4126.59 FEET MSL
 31 MAR. 61 0655 HRS MST
 ASCENSION NO. 53

UPPER AIR DATA
 0900010053
 HOLLOWMAN
 TABLE 13

GEODETIC COORDINATES
 32.88865 LAT DEG
 106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (IN) SPEED KNOTS	INDEX OF REFRACTION
4126.6	876.4	5.6	-5.7	44.0	1093.4	651.0	30.0 4.1
4500.0	864.4	11.2	-2.9	36.9	1056.7	657.7	12.4 6.4
5000.0	848.8	10.5	-3.9	36.1	1040.3	656.8	2.7 9.8
5500.0	833.1	9.3	-4.5	37.2	1025.3	655.4	358.2 13.4
6000.0	817.6	8.2	-5.1	38.4	1010.6	654.0	353.1 13.4
6500.0	802.5	7.0	-5.8	39.6	996.1	652.7	344.0 10.8
7000.0	787.6	5.8	-6.5	40.7	981.8	651.3	327.0 9.0
7500.0	773.1	4.6	-7.2	41.9	967.8	649.9	304.5 8.5
8000.0	758.8	3.5	-7.9	43.0	954.0	648.5	289.0 10.6
8500.0	744.7	2.3	-8.6	44.2	940.4	647.1	279.0 12.9
9000.0	730.9	1.1	-9.4	45.3	927.0	645.7	271.7 14.8
9500.0	717.4	-1	-10.1	46.5	913.8	644.3	268.9 16.6
10000.0	704.1	-1.2	-10.9	47.6	900.8	642.9	267.6 18.2
10500.0	690.8	-2.3	-12.7	44.3	887.3	641.6	271.6 22.3
11000.0	677.7	-3.2	-15.2	38.9	873.7	640.4	274.4 26.6
11500.0	664.8	-3.8	-18.6	30.4	859.2	639.6	276.5 31.3
12000.0	652.1	-4.2	-22.5	22.3	844.0	639.1	277.6 35.1
12500.0	639.6	-5.0	-23.8	21.1	830.5	638.1	277.7 36.9
13000.0	627.3	-5.9	-25.1	20.1	817.3	637.0	277.0 38.4
13500.0	614.9	-7.0	-25.8	20.7	804.7	635.7	275.5 39.3
14000.0	602.8	-8.2	-26.4	21.3	792.3	634.3	272.9 39.7
14500.0	590.9	-9.4	-27.1	21.9	780.1	632.9	269.8 40.0
15000.0	579.3	-10.5	-27.8	22.5	768.1	631.5	268.0 40.2
15500.0	567.9	-11.7	-28.5	23.1	756.3	630.1	266.0 40.4
16000.0	556.7	-12.8	-29.2	23.7	744.7	628.7	268.1 40.2
16500.0	545.7	-14.0	-30.0	24.3	733.3	627.3	269.1 40.0
17000.0	534.9	-15.2	-30.7	24.9	722.1	625.8	269.1 39.4
17500.0	524.4	-16.3	-31.5	25.5	711.1	624.4	268.5 39.8
18000.0	514.1	-17.5	-32.2	26.2	700.2	623.0	267.1 41.1
18500.0	503.9	-18.6	-33.0	26.8	689.6	621.6	264.2 41.7
19000.0	493.8	-19.5	-33.9	26.3	678.1	620.5	260.9 46.7
19500.0	483.8	-20.2	-35.0	25.2	666.2	619.7	257.9 49.1
20000.0	474.0	-20.9	-36.0	24.2	654.4	618.8	255.1 51.5
20500.0	464.2	-22.1	-36.8	24.8	644.0	617.3	253.4 53.6
21000.0	454.5	-23.4	-37.6	25.6	633.9	615.7	251.9 55.6
21500.0	445.1	-24.7	-36.4	26.5	624.0	614.1	251.0 57.5
22000.0	435.8	-26.0	-37.2	27.4	614.2	612.5	250.3 59.1
22500.0	426.8	-27.3	-40.1	28.3	604.6	610.9	251.4 59.1
23000.0	417.9	-28.6	-40.9	29.2	595.2	609.3	252.5 59.0
23500.0	409.2	-29.9	-41.8	30.0	585.9	607.7	253.5 57.9

STATION ALTITUDE 4126.59 FEET MSL
 31 MAR. 81 0655 HRS MST
 ASCENSION NO. 53

UPPER AIR DATA
 0900010053
 HOLLOWMAN

GEODETIC COORDINATES
 52° 88.865 LAT DEG
 106.09965 LON DEG

TABLE 13 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CURIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (IN)	SPEED KNOTS	INDEX OF REFRACTION
24000.0	400.7	-31.2 -42.7	30.9	576.8	606.0	251.8	57.5	1.0000129
24500.0	392.2	-31.8 -42.3	34.4	566.1	605.2	250.4	59.0	1.0000127
25000.0	383.8	-32.8 -42.7	36.2	556.1	604.0	249.8	61.5	1.0000125
25500.0	375.4	-34.0 -43.7	36.5	546.9	602.5	249.9	65.0	1.0000123
26000.0	367.3	-35.3 -44.8	36.7	537.9	600.9	249.6	67.9	1.0000121
26500.0	359.4	-36.5 -45.8	37.0	529.0	599.3	249.3	70.6	1.0000118
27000.0	351.6	-37.8 -46.9	37.3	520.2	597.7	249.1	72.6	1.0000116
27500.0	344.0	-39.0 -48.0	37.6	511.7	596.2	248.8	73.3	1.0000115
28000.0	336.5	-40.2 -49.0	37.9	503.3	594.6	248.3	72.1	1.0000113
28500.0	329.1	-40.6 -49.0	493.0	594.1	247.6	68.9	1.0000110	
29000.0	321.8	-41.7 -62.7	7.2**	484.3	592.7	247.2	66.5	1.0000108
29500.0	314.6	-43.0		476.2	591.1	247.1	65.7	1.0000106
30000.0	307.6	-44.3		468.2	589.4	246.9	65.2	1.0000104
30500.0	300.7	-45.6		460.3	587.7	246.6	64.6	1.0000103
31000.0	293.9	-46.7		452.1	586.2	245.8	63.4	1.0000101
31500.0	287.1	-47.9		444.0	584.7	245.1	63.0	1.0000099
32000.0	280.5	-49.0		436.0	583.2	244.4	63.1	1.0000097
32500.0	274.1	-50.2		428.1	581.7	244.1	63.4	1.0000095
33000.0	267.8	-51.3		420.5	580.2	243.7	63.7	1.0000094
33500.0	261.6	-52.5		412.9	578.7	243.9	65.0	1.0000092
34000.0	255.6	-53.6		405.6	577.2	244.3	66.5	1.0000090
34500.0	249.7	-54.6		398.3	575.7	244.4	67.3	1.0000089
35000.0	243.8	-55.8		390.8	574.4	244.5	67.7	1.0000087
35500.0	238.1	-56.8		383.4	573.0	244.4	67.3	1.0000085
36000.0	232.4	-57.7		375.6	571.9	243.7	65.0	1.0000084
36500.0	226.9	-56.3		364.6	573.6	243.0	62.7	1.0000081
37000.0	221.5	-57.0		357.1	572.7	242.3	62.4	1.0000080
37500.0	216.2	-57.7		349.7	571.8	241.6	62.1	1.0000078
38000.0	211.1	-58.4		342.5	570.9	242.3	65.4	1.0000076
38500.0	206.1	-59.1		335.4	569.9	243.2	69.5	1.0000075
39000.0	201.2	-59.8		328.5	569.0	244.5	73.1	1.0000073
39500.0	196.3	-59.9		320.7	568.9	246.1	76.5	1.0000071
40000.0	191.6	-59.8		312.9	569.1	247.4	79.2	1.0000070
40500.0	187.0	-59.6		305.2	569.3	248.0	78.8	1.0000068
41000.0	182.6	-59.3		297.3	569.8	248.7	78.4	1.0000066
41500.0	178.2	-58.8		289.6	570.4	248.8	76.8	1.0000064
42000.0	174.0	-58.3		282.1	571.0	248.6	74.7	1.0000063
42500.0	169.8	-58.2		275.2	571.2	248.4	73.0	1.0000061
43000.0	165.8	-58.7		269.3	570.5	248.2	71.7	1.0000060
43500.0	161.8	-56.7		260.4	573.1	248.2	71.1	1.0000058

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4126.59 FFET MSL
 31 MAR. 81 0655 IRS MST
 ASCENSION NO. 53

UPPER AIR DATA
 0900010053
 HOLLOWAY
 TABLE 13 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE C	DEPOINT CENTIGRADE	REL.HUM. PERCENT	SPEED OF SOUND METER	DIRECTION DEGREES (TN)	WIND DATA KNOTS	INDEX OF REFRACTION
44000.0	156.0	-56.8		254.4	573.0	248.6	72.1	1.000057
44500.0	154.2	-57.0		248.5	572.8	249.0	73.3	1.000055
45000.0	150.6	-57.1		242.8	572.7	249.9	75.9	1.000054
45500.0	147.0	-57.4		237.4	572.2	250.6	77.7	1.000053
46000.0	143.5	-57.8		232.1	571.7	250.7	76.0	1.000052
46500.0	140.1	-58.2		227.0	571.2	250.7	73.9	1.000051
47000.0	136.8	-58.6		222.0	570.7	250.1	69.4	1.000049
47500.0	133.5	-58.9		217.1	570.2	249.3	64.9	1.000048
48000.0	130.3	-59.3		212.3	569.7	248.2	62.0	1.000047
48500.0	127.2	-59.6		207.5	569.3	247.0	59.1	1.000046
49000.0	124.2	-59.6		202.5	569.3	246.3	59.7	1.000045
49500.0	121.2	-59.6		197.7	569.3	245.7	60.5	1.000044
50000.0	118.3	-59.6		193.0	569.3	245.5	62.6	1.000043
50500.0	115.5	-59.2		188.0	569.8	245.5	64.9	1.000042
51000.0	112.7	-58.6		183.0	570.6	245.5	66.6	1.000041
51500.0	110.0	-58.0		178.2	571.4	245.7	67.6	1.000040
52000.0	107.4	-58.2		174.0	571.2	245.9	68.4	1.000039
52500.0	104.8	-58.7		170.3	570.5	246.5	66.4	1.000038
53000.0	102.3	-59.3		166.7	569.7	247.1	64.4	1.000037
53500.0	99.9	-59.8		163.1	569.0	247.0	60.9	1.000036
54000.0	97.5	-60.1		159.4	568.6	248.7	56.7	1.000036
54500.0	95.1	-60.5		155.8	568.1	249.6	52.9	1.000035
55000.0	92.8	-60.8		152.3	567.7	250.3	50.0	1.000034
55500.0	90.6	-61.1		148.9	567.3	251.0	47.2	1.000033
56000.0	88.4	-61.5		145.5	566.8	250.7	45.4	1.000032
56500.0	85.3	-61.8		142.2	566.4	250.1	43.8	1.000032
57000.0	84.2	-62.1		139.0	565.9	248.8	43.0	1.000031
57500.0	82.2	-62.4		135.9	565.5	246.5	43.3	1.000030
58000.0	80.2	-62.4		132.6	565.5	244.2	43.0	1.000030
58500.0	78.3	-62.1		129.1	566.0	241.5	44.9	1.000029
59000.0	76.4	-61.7		125.8	566.0	238.6	46.3	1.000028
59500.0	74.5	-61.3		122.6	567.0	236.7	46.1	1.000027
60000.0	72.7	-61.0		119.4	567.5	235.1	42.5	1.000027
60500.0	71.0	-60.6		116.3	568.0	233.2	39.0	1.000026
61000.0	69.3	-60.2		113.3	568.0	234.3	32.6	1.000025
61500.0	67.6	-59.7		110.3	569.2	237.3	25.8	1.000025
62000.0	65.0	-59.2		107.5	569.8	241.7	19.6	1.000024
62500.0	64.4	-58.7		104.7	370.5	260.8	18.2	1.000023
63000.0	62.9	-58.3		102.0	571.0	200.0	17.2	1.000023
63500.0	61.4	-58.4		99.6	571.0	262.6	17.2	1.000022

STATION ALTITUDE 4126.59 FEET A.S.L.
31 MAR. 1965 HRS. MST
ASCENSION NO. 53

UPPER AIR DATA
0900010055
TABLE 13 cont'

EODETIC COORDINATES
32.88865 LAT DEG
106.09965 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	AIR DEPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF WIND DATA KNOTS	DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
64000.0	59.9	-58.4			97.2	570.9	256.7	18.1	1.000022
64500.0	58.5	-58.5			94.9	570.8	251.5	19.2	1.000021
65000.0	57.1	-58.5			92.7	570.7	243.9	20.4	1.000021
65500.0	55.8	-58.6			90.5	570.7	236.5	21.9	1.000020
66000.0	54.4	-59.3			88.6	569.8	231.2	23.8	1.000020
66500.0	53.1	-60.2			86.9	568.6	229.6	25.9	1.000019
67000.0	51.8	-61.1			85.1	567.5	228.2	28.0	1.000019
67500.0	50.6	-62.0			83.5	566.1	226.6	26.9	1.000019
68000.0	49.4	-61.5			81.3	566.8	224.5	24.5	1.000018
68500.0	48.2	-59.7			78.7	569.2	222.0	21.9	1.000018
69000.0	47.1	-57.9			76.2	571.5	224.0	18.3	1.000017
69500.0	46.0	-56.2			73.8	573.9	226.1	14.7	1.000016
70000.0	44.9	-54.4			71.5	576.2	235.7	13.0	1.000016
70500.0	43.8	-52.6			69.2	578.5	244.5	12.8	1.000015
71000.0	42.8	-53.1			67.7	577.9	255.4	13.0	1.000015
71500.0	41.8	-53.7			65.3	577.2	260.3	13.5	1.000015
72000.0	40.8	-54.8			64.9	576.5	264.0	14.1	1.000014
72500.0	39.9	-54.7			63.6	575.8	267.5	14.7	1.000014
73000.0	38.9	-54.9			62.2	575.6	266.3	14.7	1.000014
73500.0	38.0	-54.1			60.5	576.6	265.2	14.8	1.000013
74000.0	37.2	-53.4			58.9	577.6	264.0	14.6	1.000013
74500.0	36.3	-52.6			57.3	578.5	262.6	13.5	1.000013
75000.0	35.5	-51.8			55.8	579.5	261.3	12.5	1.000012
75500.0	34.6	-51.1			54.3	580.5	260.3	10.9	1.000012
76000.0	33.8	-50.3			52.9	581.5	260.6	8.5	1.000012
76500.0	33.1	-50.3			51.7	581.6	261.1	6.1	1.000012
77000.0	32.3	-50.6			50.6	581.2	259.7	4.2	1.000011
77500.0	31.6	-50.8			49.5	580.9	253.3	2.8	1.000011
78000.0	30.8	-51.1			48.4	580.5	236.6	1.6	1.000011
78500.0	30.1	-51.4			47.3	580.2	213.9	1.5	1.000011
79000.0	29.4	-50.9			46.2	580.7	208.4	2.0	1.000010
79500.0	28.8	-50.4			45.0	581.5	205.2	2.5	1.000010
80000.0	28.1	-49.6			43.9	582.2	209.1	2.9	1.000010
80500.0	27.5	-49.2			42.8	583.0	217.1	3.2	1.000010
81000.0	26.9	-48.7			41.7	583.7	223.5	3.6	1.000009
81500.0	26.3	-48.1			40.6	584.4	231.0	3.9	1.000009
82000.0	25.7	-47.5			39.6	585.2	242.1	4.1	1.000009
82500.0	25.1	-47.0			38.6	585.9	250.9	4.5	1.000009
83000.0	24.5	-46.4			37.7	586.6	258.1	4.7	1.000008
83500.0	24.0	-45.8			36.7	587.4	264.9	4.5	1.000008

STATION ALTITUDE 4126.59 FEET MSL
 31 MAR. 61 0655 HRS MST
 ASCENSION NO. 53

UPPLR AIR DATA
 0900010053
 HOLLOWMAN

TABLE 13 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (IN) KNOTS	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
84000.0	23.4	-45.3			35.8	548.1	272.3	4.4	1.000008
84500.0	22.9	-44.7			34.9	548.8	277.0	4.1	1.000008
85000.0	22.4	-44.8			34.1	548.7	277.0	3.2	1.000008
85500.0	21.9	-45.0			33.4	548.4	276.0	2.4	1.000007
86000.0	21.4	-45.2			32.7	548.1	269.3	1.7	1.000007
86500.0	20.9	-45.5			32.0	547.8	245.6	2.1	1.000007
87000.0	20.4	-45.7			31.3	547.6	231.9	2.6	1.000007
87500.0	20.0	-45.9			30.6	547.3	224.5	3.6	1.000007
88000.0	19.5	-45.5			29.9	547.0	232.4	5.0	1.000007
88500.0	19.1	-45.2			29.2	548.2	236.6	6.5	1.000006
89000.0	18.7	-44.8			28.5	548.7	239.5	8.0	1.000006
89500.0	18.3	-44.4			27.8	549.2			1.000006
90000.0	17.8	-44.1			27.1	549.6			1.000006
90500.0	17.4	-43.7			26.5	549.1			1.000006
91000.0	17.1	-43.4			25.9	549.6			1.000006

GEODETIC COORDINATES
 32° 08' 06" LAT DEG
 106° 09' 06" LON DEG

STATION ALTITUDE 4126.59 FEET MSL
 31 MAR. '51 0655 HRS MST
 ASCENSION NO. 53

MANDATORY LEVELS
 0900010053
 HOLLOWMAN
 TABLE 14

GEODETIC COORDINATES
 32°48'86" LAT DEG
 106°09'65" LON DEG

PRESSURE MILLIBARS	GEO-POTENTIAL FEET	TEMPERATURE DEGREES	REL. HUM. PERCENT	WIND DATA	
				AIR DEPTHT	DIRECTION DEGREES (TN)
850.0	4958.	10.6	-3.0	36.	3•2
800.0	6603.	6.8	-5.9	40.	341•3
750.0	8330.	2.7	-8.4	44.	282•0
700.0	10147.	-1.6	-11.1	48.	269•0
650.0	12072.	-4.3	-22.7	22.	277•7
600.0	14126.	-8.5	-26.6	21.	272•1
550.0	16319.	-13.5	-29.7	24.	269•0
500.0	18672.	-19.1	-33.3	27.	262•9
450.0	21223.	-24.0	-38.0	26.	251•4
400.0	24002.	-31.3	-42.8	31.	251•7
350.0	27067.	-38.0	-47.1	37.	249•0
300.0	30496.	-45.7			246•5
250.0	34403.	-54.7			64•5
200.0	39029.	-60.0			244•4
175.0	41771.	-56.4			67•2
150.0	44965.	-57.1			56.5
125.0	48725.	-59.6			57.6
100.0	53317.	-59.8			75•3
80.0	57861.	-62.4			248•7
70.0	60578.	-60.4			250•0
60.0	63750.	-58.4			76•2
50.0	67491.	-62.4			246•5
40.0	72149.	-54.6			59.5
30.0	78262.	-51.4			247.7
25.0	82187.	-46.9			61•3
20.0	87070.	-45.9			43•8

STATION ALTITUDE 4051.00 FEET MSL
31 MAR. 81 0655 HRS. MST
ASCENSION NO. 17

SIGNIFICANT LEVEL DATA
090000Z0017
JALLEN
TABLE 15

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE DEGREES	DEWPOINT CENTIGRADE	REL.HUM. PERCENT
870.6	4051.0	6.8	-9.1	51.0
863.4	4524.1	0.7	-3.2	40.0
850.0	4949.8	8.7	-4.1	40.0
745.2	8480.6	1.9	-10.2	40.0
700.0	10126.9	-2.1	-12.7	44.0
649.8	12053.1	-6.9	-16.0	48.0
640.2	12434.6	-7.3	-23.0	27.0
631.2	12797.1	-7.3	-24.6	23.0
585.8	14697.5	-10.3	-26.9	24.0
500.0	18637.3	-19.5	-32.6	30.0
427.6	22396.8	-27.9	-38.8	34.0
400.0	23963.9	-31.0	-38.2	49.0
328.0	28495.6	-41.5	-49.7	40.0
300.0	30466.4	-46.7		
273.0	32504.0	-51.5		

STATION ALTITUDE 4051.00 FEET MSL
 31 MAR. A1 0655 IRS MST
 ASCENSION NO. 17

UPPER AIR DATA
 0900030017
 JALLEN
 TABLE 16

GEODETIC COORDINATES
 33.1671° LAT DEG
 106.4951° LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEPOINT CENTIGRADE	REL. HUM. PERCENT	SPEED OF SOUND KNOTS	DIRECTION DEGREES (1N)	WIND DATA KNOTS	INDEX OF REFRACTION
4051.0	878.6	6.8	-9.1	31.0	1091.9	652.3	360.0	1.000258
4500.0	864.2	9.6	-3.5	39.5	1062.7	655.7	338.3	1.000259
5000.0	848.4	8.6	-4.2	40.0	1046.9	654.6	322.6	1.000255
5500.0	832.7	7.6	-5.1	40.0	1031.2	653.4	313.1	1.000250
6000.0	817.4	6.7	-5.9	40.0	1015.7	652.3	307.0	1.000245
6500.0	802.3	5.7	-6.8	40.0	1000.5	651.1	305.0	1.000241
7000.0	787.5	4.8	-7.7	40.0	985.5	650.0	303.9	1.000236
7500.0	772.9	3.8	-8.5	40.0	970.8	648.8	291.1	1.000232
8000.0	758.7	2.8	-9.4	40.0	956.2	647.7	280.2	1.000228
8500.0	744.7	1.9	-10.3	40.0	942.0	646.5	270.3	1.000224
9000.0	730.6	.6	-11.0	41.3	928.4	645.1	261.0	1.000220
9500.0	716.9	-.6	-11.7	42.5	915.0	643.6	256.3	1.000217
10000.0	703.4	-1.8	-12.5	43.7	901.9	642.2	255.0	1.000213
10500.0	690.0	-3.0	-13.3	44.8	888.8	640.7	256.3	1.000209
11000.0	676.8	-4.3	-14.2	45.8	875.9	639.2	262.1	1.000206
11500.0	663.6	-5.5	-15.1	46.9	863.2	637.7	266.9	1.000202
12000.0	651.1	-6.8	-15.9	47.9	850.7	636.0	271.9	1.000199
12500.0	638.6	-7.3	-23.3	26.3	836.3	635.4	276.0	1.000191
13000.0	626.2	-7.6	-25.0	23.1	821.1	635.0	277.4	1.000187
13500.0	614.0	-8.4	-25.6	23.4	807.6	634.0	278.5	1.000184
14000.0	602.1	-9.2	-26.2	23.6	794.3	633.1	276.4	1.000181
14500.0	590.4	-10.0	-26.7	23.9	781.2	632.1	274.1	1.000178
15000.0	578.7	-11.0	-27.3	24.5	768.7	630.9	271.0	1.000175
15500.0	567.2	-12.2	-28.0	25.2	756.8	629.5	268.6	1.000172
16000.0	555.9	-13.3	-28.7	26.0	745.1	628.1	267.6	1.000169
16500.0	544.9	-14.5	-29.4	26.7	733.6	627.0	267.3	1.000166
17000.0	534.0	-15.7	-30.1	27.5	722.3	625.2	267.0	1.000164
17500.0	523.4	-16.8	-30.9	28.3	711.1	623.8	268.5	1.000161
18000.0	513.0	-18.0	-31.6	29.0	700.2	622.4	269.4	1.000158
18500.0	502.8	-19.2	-32.4	29.8	689.4	620.9	270.0	1.000156
19000.0	492.5	-20.3	-33.2	30.4	678.4	619.6	270.3	1.000153
19500.0	482.4	-21.4	-34.0	30.9	667.4	618.2	266.2	1.000151
20000.0	472.4	-22.5	-34.8	31.4	656.6	616.8	260.5	1.000148
20500.0	462.7	-23.7	-35.6	32.0	645.9	615.4	256.3	1.000146
21000.0	453.2	-24.8	-36.5	32.5	635.5	614.0	252.6	1.000143
21500.0	443.9	-25.9	-37.3	33.0	625.2	612.6	252.9	1.000141
22000.0	434.7	-27.0	-38.2	33.6	615.2	611.3	254.2	1.000138
22500.0	425.7	-28.1	-38.7	35.0	605.1	619.9	254.4	1.000136
23000.0	416.8	-29.1	-38.4	39.8	594.8	608.7	254.1	1.000134
23500.0	408.0	-30.1	-38.2	40.6	584.6	607.4	254.3	1.000132

STATION ALTITUDE 4051.00 FEET MSL
 31 MAR. 81 0655 IRS MST
 ASCENSION NO. 17

UPPER AIR DATA
 0900030017
 JALLEN
 TABLE 16 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL. HUM. PERCENT	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
24000.0	399.4	-31.1	-30.2	48.9	574.6	606.2	254.6	68.2
24500.0	390.7	-32.2	-39.5	47.9	564.9	604.7	255.2	69.0
25000.0	382.3	-33.4	-40.8	46.9	555.3	603.3	256.0	69.5
25500.0	374.0	-34.6	-42.1	45.9	546.0	601.8	256.6	68.9
26000.0	365.9	-35.7	-43.3	45.0	536.8	600.3	257.1	68.1
26500.0	356.0	-36.9	-44.6	44.0	527.7	598.9	256.6	67.7
27000.0	350.2	-38.0	-45.9	43.0	518.8	597.4	256.0	67.3
27500.0	342.6	-39.2	-47.2	42.0	510.1	595.9	254.6	67.5
28000.0	335.2	-40.4	-48.4	41.0	501.6	594.4	253.3	68.1
28500.0	327.9	-41.5	-49.7	39.9**	493.2	592.9	251.0	69.7
29000.0	320.6	-42.8	-53.4	29.8**	484.9	591.2	250.5	71.1
29500.0	313.4	-44.1	-57.0	19.6**	476.8	589.5	249.4	72.0
30000.0	306.4	-45.5	-64.5	9.5**	468.8	587.8	248.4	72.7
30500.0	299.5	-46.8			461.0	586.1	247.8	73.0
31000.0	292.7	-48.0			452.8	584.6	247.3	74.1
31500.0	286.0	-49.1			444.7	583.1	247.0	76.0
32000.0	279.4	-50.3			436.9	581.6	249.1	77.7
32500.0	273.1	-51.5			429.1	580.0		1.000096

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL
 31 MAR. 01 0655 HRS. MST
 ASCENSION I.O. 17

MANDATORY LEVELS
 0900030017
 JALLEF N
 TABLE 17

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE		RH% • HUM. PERCENT	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS
		DEGREES	CENTIGRAVE			
850.0	4946.	8.7	-4.1	40.	323.9	2.9
800.0	6582.	5.6	-6.9	40.	304.8	7.0
750.0	8303.	2.2	-9.9	40.	274.5	15.7
700.0	10118.	-2.1	-12.7	44.	254.7	20.9
650.0	12033.	-6.9	-16.0	48.	272.3	31.3
600.0	14074.	-9.3	-26.3	24.	276.0	41.5
550.0	16263.	-14.0	-29.1	26.	267.1	42.2
500.0	18613.	-19.5	-32.6	30.	270.1	44.0
450.0	21153.	-25.2	-36.8	33.	252.0	59.1
400.0	23926.	-31.0	-38.2	49.	254.6	68.1
350.0	26989.	-38.1	-45.9	43.	255.9	67.3
300.0	30409.	-46.7	-46.7	247.8	73.0	

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL
31 MAR. 01
ASCENSION NO. 18

SIGNIFICANT LEVEL DATA
0900030018
JALLEN
TABLE 18

GEOGRAPHIC COORDINATES
33°16'12" LAT DEG
106°49'51" LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DEWPOINT CENTIGRADE	REL. HUM. PERCENT
879.6	4051.0	13.9	-10.7	17.0
870.0	4353.4	11.9	-3.4	34.0
850.0	4989.9	9.8	-5.3	34.0
726.2	9206.1	-2	-10.4	46.0
700.0	10169.7	-1.7	-15.5	34.0
651.8	12024.7	-4.7	-22.1	24.0
598.2	14227.8	-8.5	-24.5	26.0
500.0	18701.7	-19.8	-32.2	32.0
466.8	20365.6	-23.8	-34.3	37.0
451.2	21180.6	-24.8	-35.5	36.0
400.0	24026.1	-31.2	-42.4	32.0
338.2	27869.7	-39.9	-50.4	31.0
300.0	30526.9	-46.5		
250.0	34429.5	-55.9		
216.8	37386.2	-60.2		
207.4	38300.0	-58.8		
200.0	39049.9	-59.7		
197.8	39277.7	-59.8		
184.0	40785.0	-54.6		
175.2	41814.8	-56.3		
150.0	45070.4	-55.7		
106.8	52094.8	-62.4		
100.0	53437.4	-61.5		
91.0	55366.5	-61.5		
76.0	59118.9	-53.8		
70.0	60851.3	-56.8		
56.6	65144.1	-64.7		
50.0	67782.5	-53.9		
43.4	70776.8	-55.3		
40.8	72084.0	-53.8		
35.2	75220.9	-53.6		
30.0	78652.4	-49.4		
24.4	83151.6	-47.4		

STATION ALTITUDE 4051.00 FEET MSL
 31 MAR. 61 0918 IRS MST
 ASCENSION NO. 18

UPPER AIR DATA
 090003001B
 JALLEN
 TABLE 19

GEODETIC COORDINATES
 33.1671° LAT DEG
 106.49511 LON IEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND IN KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
4051.0	879.6	13.9	-10.7	17.0	1066.3	660.4	270.0	1.9	1.000250
4500.0	865.4	11.4	-3.9	34.0	1057.2	657.8	286.4	1.6	1.000257
5000.0	849.7	9.8	-5.3	34.0	1044.3	655.9	310.5	1.5	1.000252
5500.0	834.0	8.6	-5.8	35.5	1029.3	644.5	332.7	1.7	1.000248
6000.0	818.5	7.4	-6.4	36.9	1014.6	653.1	323.0	3.1	1.000244
6500.0	803.4	6.2	-6.9	38.3	1000.1	641.7	308.0	4.5	1.000240
7000.0	788.5	5.0	-7.5	39.7	985.8	650.3	291.9	6.3	1.000237
7500.0	774.0	3.8	-8.1	41.1	971.8	648.9	273.5	8.1	1.000233
8000.0	759.6	2.7	-8.8	42.6	958.0	647.5	259.6	10.6	1.000229
8500.0	745.6	1.5	-9.4	44.0	944.4	646.1	252.6	13.8	1.000225
9000.0	731.8	.3	-10.1	45.4	931.0	644.7	249.4	17.1	1.000222
9500.0	716.1	-7	-11.8	42.3	916.9	643.5	256.5	19.7	1.000217
10000.0	704.5	-1.4	-14.5	36.1	902.3	642.5	264.2	22.6	1.000211
10500.0	691.2	-2.2	-16.6	32.2	887.9	641.5	273.5	26.1	1.000206
11000.0	676.0	-3.0	-18.3	29.5	873.7	640.5	278.7	28.9	1.000202
11500.0	665.1	-3.9	-20.1	26.8	859.8	639.5	282.0	31.1	1.000198
12000.0	652.4	-4.7	-22.0	24.1	846.0	638.5	282.1	32.6	1.000194
12500.0	639.8	-5.5	-22.6	24.4	832.4	637.5	281.5	34.0	1.000191
13000.0	627.5	-6.4	-23.2	24.9	819.0	636.5	278.1	37.1	1.000187
13500.0	615.4	-7.2	-23.7	25.3	805.8	635.4	275.0	39.7	1.000184
14000.0	603.5	-8.1	-24.3	25.8	792.8	634.4	271.0	40.8	1.000181
14500.0	591.7	-9.2	-24.9	26.4	780.5	633.1	267.6	41.7	1.000178
15000.0	580.0	-10.5	-25.6	27.0	768.7	631.6	265.1	42.2	1.000175
15500.0	568.5	-11.7	-26.6	27.7	757.1	630.1	264.1	42.8	1.000172
16000.0	557.2	-13.0	-27.4	28.4	745.7	628.5	264.5	43.3	1.000170
16500.0	546.1	-14.2	-28.3	29.0	734.5	627.0	265.1	42.9	1.000167
17000.0	535.3	-15.5	-29.2	29.7	723.5	625.4	266.1	41.9	1.000164
17500.0	524.7	-16.8	-30.0	30.4	712.6	623.9	266.0	41.7	1.000162
18000.0	514.3	-18.0	-30.9	31.1	702.0	622.4	264.9	42.2	1.000159
18500.0	504.1	-19.3	-31.8	31.7	691.5	620.8	263.1	44.2	1.000156
19000.0	493.9	-20.5	-32.6	32.9	680.0	619.3	261.1	46.9	1.000154
19500.0	482.8	-21.7	-33.2	34.4	670.1	617.6	259.7	49.5	1.000151
20000.0	473.9	-22.9	-33.8	35.9	659.6	616.3	258.5	52.2	1.000149
20500.0	464.2	-24.0	-34.5	36.6	648.8	615.1	258.7	53.3	1.000146
21000.0	454.6	-24.6	-35.2	36.2	637.0	614.3	259.1	54.4	1.000144
21500.0	445.1	-25.5	-36.3	35.6	626.1	613.1	260.0	55.2	1.000141
22000.0	435.8	-26.6	-37.5	34.8	615.8	611.7	260.6	56.1	1.000139
22500.0	426.7	-27.8	-38.7	34.1	605.1	609.3	260.0	57.3	1.000136
23000.0	417.8	-28.9	-39.9	33.4	595.7	609.9	260.4	58.6	1.000134
23500.0	407.0	-30.0	-41.1	32.7	585.5	607.5	259.5	60.2	1.000132

STATION ALTITUDE 4051.00 FEET MSL
 31 MAR. 61 0918 HRS MSL
 ASCENSION NO. 18

UPPER AIR DATA
 0900030018
 JALLEN
 TABLE 19 cont'

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT DEGREES	REL.HUM. PERCENT	REFL.HUM. GM/CURIC METER	DENSITY SIGHTS OF SOUND METERS	DIRECTION DEGREES (TN)	SPEED KNOTS	WIND DATA INDEX OF REFRACTION
24000.0	400.4	-31.1	-42.3	32.0	576.3	606.1	258.4	61.6	1.000129
24500.0	391.8	-32.3	-43.4	31.9	566.6	604.7	257.1	62.9	1.000127
25000.0	383.3	-33.4	-44.4	31.7	557.0	603.2	256.4	64.0	1.000125
25500.0	375.1	-34.5	-45.5	31.6	547.5	601.8	255.9	65.1	1.000123
26000.0	367.0	-35.7	-46.5	31.5	538.3	600.4	255.3	66.3	1.000120
26500.0	359.0	-36.8	-47.6	31.4	529.2	599.7	254.7	67.7	1.000118
27000.0	351.3	-37.9	-48.6	31.2	520.2	597.5	253.5	68.7	1.000116
27500.0	343.7	-39.1	-49.7	31.1	511.5	596.1	251.7	69.5	1.000114
28000.0	336.2	-40.2	-51.2	29.5**	502.8	594.6	250.0	70.2	1.000112
28500.0	329.7	-41.5	-54.1	23.6**	494.2	593.0	248.4	70.8	1.000110
29000.0	321.4	-42.7	-57.4	17.8**	485.8	591.4	247.6	70.7	1.000108
29500.0	314.2	-43.9	-61.5	12.0**	477.6	589.8	247.3	70.1	1.000106
30000.0	307.2	-45.2	-67.4	6.1**	469.5	588.2	247.5	69.4	1.000105
30500.0	300.4	-46.4	-86.8	.3**	461.5	586.6	248.0	68.5	1.000103
31000.0	293.4	-47.6			453.3	585.0	248.4	69.0	1.000101
31500.0	286.7	-48.8			445.2	583.5	248.7	70.5	1.000099
32000.0	280.0	-50.0			437.3	581.9	248.8	72.3	1.000097
32500.0	273.6	-51.3			429.5	580.3	248.9	74.4	1.000096
33000.0	267.3	-52.5			421.9	578.7	249.3	75.8	1.000094
33500.0	261.1	-53.7			414.4	577.2	249.9	76.2	1.000092
34000.0	255.1	-54.9			407.1	575.6	250.7	76.5	1.000091
34500.0	249.2	-56.0			399.7	574.1	251.8	76.6	1.000089
35000.0	243.2	-56.7			391.5	573.1	252.7	76.7	1.000087
35500.0	237.4	-57.5			383.5	572.2	253.0	76.9	1.000085
36000.0	231.8	-58.2			375.6	571.2	253.1	77.0	1.000084
36500.0	226.3	-58.9			367.9	570.2	252.4	76.4	1.000082
37000.0	220.9	-59.6			360.4	569.3	251.6	75.8	1.000080
37500.0	215.6	-60.0			352.4	568.7	250.9	74.6	1.000078
38000.0	210.4	-59.3			342.7	569.8	250.2	73.4	1.000076
38500.0	205.4	-59.0			334.2	570.1	250.0	72.7	1.000074
39000.0	200.5	-59.6			327.1	569.5	249.8	71.9	1.000073
39500.0	195.7	-59.0			318.4	570.1	249.9	71.0	1.000071
40000.0	191.1	-57.3			308.4	572.4	250.0	70.0	1.000069
40500.0	186.5	-55.6			298.7	574.6	250.5	68.5	1.000067
41000.0	182.1	-55.0			290.8	575.5	250.6	67.0	1.000065
41500.0	177.8	-55.8			285.0	574.4	250.4	66.0	1.000063
42000.0	173.7	-56.3			278.9	573.7	251.0	65.5	1.000062
42500.0	169.6	-56.2			272.2	573.9	251.2	64.9	1.000061
43000.0	165.6	-56.1			265.7	574.0	251.1	64.3	1.000059
43500.0	161.7	-56.0			254.3	574.1	251.1	63.6	1.000058

** AT LAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL
 31 MAR. 61 0918 IRS MST
 ASCENSION NO. 18

UPPER AIR DATA
 0900030016
 JALLEN
 TABLE 19 cont'

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

GEOMETRIC PRESSURE ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL. HUM. PERCENT	SPEED OF SOUND METER	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
44000.0 C	157.9	-55.9	253.1	574.2	251.1	62.5	1.000056
44500.0 n	154.1	-55.8	247.1	574.3	251.2	61.1	1.000055
45000.0 n	150.5	-55.7	241.1	574.5	251.4	60.0	1.000054
45500.0 n	149.9	-56.1	235.8	573.9	252.1	60.0	1.000053
46000.0 n	143.4	-56.6	230.7	573.3	252.9	60.0	1.000051
46500.0 n	140.0	-57.1	225.7	572.7	250.9	62.2	1.000050
47000.0 n	139.6	-57.5	220.8	572.0	248.7	64.7	1.000049
47500.0 n	133.4	-58.0	216.0	571.4	246.2	67.0	1.000048
48000.0 n	130.2	-58.5	211.3	570.8	243.5	69.0	1.000047
48500.0 n	127.1	-59.0	206.7	570.1	240.0	71.1	1.000046
49000.0 n	124.0	-59.4	202.2	569.5	240.1	71.6	1.000045
49500.0 n	121.1	-59.9	197.8	568.9	241.4	70.5	1.000044
50000.0 n	118.2	-60.4	193.5	568.2	242.6	69.5	1.000043
50500.0 n	115.4	-60.9	189.3	567.6	245.5	69.5	1.000042
51000.0 n	112.6	-61.4	185.2	567.0	248.6	70.1	1.000041
51500.0 n	109.9	-61.8	181.2	566.3	251.3	70.8	1.000040
52000.0 n	107.3	-62.3	177.3	565.7	252.2	72.0	1.000039
52500.0 n	104.7	-62.1	172.8	565.9	253.0	73.2	1.000038
53000.0 n	102.2	-61.8	168.4	566.4	253.7	72.1	1.000038
53500.0 n	99.7	-61.5	164.1	566.8	254.2	68.5	1.000037
54000.0 n	97.3	-61.5	160.1	566.8	254.7	65.0	1.000036
54500.0 n	94.9	-61.5	156.3	566.8	255.0	61.6	1.000035
55000.0 n	92.6	-61.5	152.5	566.8	255.2	58.2	1.000034
55500.0 n	90.4	-61.2	148.6	567.1	255.1	55.7	1.000033
56000.0 n	88.3	-60.2	144.4	566.5	254.1	54.9	1.000032
56500.0 n	86.2	-59.2	140.3	569.9	253.2	54.1	1.000031
57000.0 n	84.1	-58.1	136.3	571.2	252.0	51.7	1.000030
57500.0 n	82.1	-57.1	132.5	572.6	250.7	48.9	1.000030
58000.0 n	80.2	-56.1	128.7	574.0	249.5	45.6	1.000029
58500.0 n	78.3	-55.1	125.1	575.3	248.7	41.3	1.000028
59000.0 n	76.4	-54.0	121.5	576.7	247.7	37.1	1.000027
59500.0 n	74.6	-54.5	118.9	576.1	246.4	31.6	1.000026
60000.0 n	72.9	-55.3	116.6	575.0	244.2	25.9	1.000026
60500.0 n	71.2	-56.2	114.3	573.8	241.4	20.7	1.000025
61000.0 n	69.5	-57.1	112.0	572.7	236.3	16.2	1.000025
61500.0 n	67.8	-58.0	109.8	571.4	227.3	11.9	1.000024
62000.0 n	66.2	-58.9	107.6	570.2	220.7	10.2	1.000024
62500.0 n	64.6	-59.8	105.5	569.0	220.7	10.5	1.000023
63000.0 n	63.0	-60.8	103.4	567.8	220.0	10.7	1.000023
63500.0 n	61.5	-61.7	101.4	566.5	220.4	12.9	1.000023

STATION ALTITUDE 4051.00 FEET MSL
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UPPER AIR DATA
 0900030016

GEOGRAPHIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

JALLEN
 TABLE 19 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL. HUM. PERCENT	SOUND SPEED IN METER	DENSITY GM/CUBIC METER	INDEX OF REFRACTION	WIND DATA
								DIRECTION DEGREES (TN) SPEED KNOTS
64000.0	60.1	-62.6		99.4	565.3	291.6	15.9	1.000022
64500.0	58.6	-63.5		97.4	564.1	235.1	18.9	1.000022
65000.0	57.2	-64.4		95.5	562.8	236.7	22.7	1.000021
65500.0	55.8	-63.2		92.7	564.4	237.9	26.5	1.000021
66000.0	54.5	-61.2		89.6	567.2	38.7	30.3	1.000020
66500.0	53.2	-59.1		86.6	569.9	239.9	33.1	1.000019
67000.0	51.9	-57.1		83.7	572.6	240.9	35.9	1.000018
67500.0	50.7	-55.1		81.0	575.3			
68000.0	49.5	-54.0		78.7	576.7			
68500.0	48.3	-54.2		76.9	576.4			
69000.0	47.2	-54.5		75.2	576.1			
69500.0	46.1	-54.7		73.5	575.8			
70000.0	45.0	-54.9		71.9	575.5			
70500.0	44.0	-55.2		70.3	575.2			
71000.0	42.9	-55.0		68.6	575.3			
71500.0	41.9	-54.5		66.8	576.1			
72000.0	41.0	-53.9		65.1	576.9			
72500.0	40.0	-53.8		63.5	577.0			
73000.0	39.1	-53.7		62.0	577.1			
73500.0	38.2	-53.7		60.6	577.1			
74000.0	37.3	-53.7		59.2	577.1			
74500.0	36.4	-53.6		57.8	577.2			
75000.0	35.6	-53.6		56.4	577.2			
75500.0	34.7	-53.3		55.0	577.7			
76000.0	33.9	-52.6		53.6	578.5			
76500.0	33.2	-52.0		52.2	579.3			
77000.0	32.4	-51.4		50.9	580.1			
77500.0	31.7	-50.8		49.6	580.9			
78000.0	30.9	-50.2		48.3	581.7			
78500.0	30.2	-49.6		47.1	582.5			
79000.0	29.5	-49.2		45.9	582.9			
79500.0	28.9	-49.0		44.8	583.2			
80000.0	28.2	-48.8		43.8	583.5			
80500.0	27.6	-48.6		42.8	583.8			
81000.0	26.9	-48.4		41.7	584.1			
81500.0	26.3	-48.1		40.8	584.4			
82000.0	25.7	-47.9		39.8	584.7			
82500.0	25.1	-47.7		38.8	585.0			
83000.0	24.6	-47.5		37.9	585.3			

STATION ALTITUDE 4051.00 FEET MSL
 31 MAR. 81 0918 HRS MST
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MANDATORY LEVELS
 0900030018
 JALLEN
 TABLE 20

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

PRESSURE GEOPOTENTIAL MILLIBARS	FEET	AIR DEGREES	TEMPERATURE DEGREES CENTIGRAVE	REL. HUM. PERCENT	WIND DATA	
					DIRECTION DEGREES(TN)	SPEED KNOTS
500.0	4907.	9.0	-5.3	34.	309.8	1.5
800.0	6627.	5.9	-7.1	39.	302.8	4.9
750.0	8348.	1.8	-9.2	44.	254.3	12.8
700.0	10160.	-1.7	-15.5	34.	267.6	23.7
650.0	12084.	-4.8	-22.2	24.	282.0	32.8
600.0	14135.	-8.4	-24.4	26.	269.9	41.1
550.0	16328.	-13.8	-26.5	29.	264.8	43.3
500.0	18677.	-19.8	-32.2	32.	262.5	45.2
450.0	21214.	-24.9	-35.6	36.	259.5	54.8
400.0	23988.	-31.2	-42.4	32.	258.3	61.7
350.0	27049.	-38.1	-48.0	31.	253.0	66.8
300.0	30469.	-46.5			248.1	68.5
250.0	34358.	-55.0			251.6	76.5
200.0	38960.	-59.7			249.8	71.9
175.0	41737.	-56.3			250.9	65.7
150.0	44954.	-55.7			251.4	60.0
125.0	48732.	-59.3			239.7	71.9
100.0	53278.	-61.5			254.1	69.1
80.0	57850.	-56.0			249.5	45.5
70.0	60648.	-56.8			238.4	17.8
60.0	63810.	-62.6			231.6	15.9
50.0	67534.	-53.9				
40.0	72222.	-53.8				
30.0	78323.	-49.4				
25.0	82259.	-47.6				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.